



**BALTIMORE AND SUSQUEHANNA**

Railroad. The Passenger train runs daily except Sunday, as follows:

Leaves Baltimore at 9 a.m., and arrives at 6 $\frac{1}{2}$  p.m. Arrives at York at 12 $\frac{1}{2}$  p.m., and leaves for Columbia at 1 $\frac{1}{2}$  p.m. Leaves Columbia at 2 p.m., and leaves York for Baltimore at 3 p.m. Fare to York \$2, Wrightsville \$2 50, and Columbia \$2 62 $\frac{1}{2}$ . The train connects at York with stages for Harrisburg, Gettysburg, Chambersburg, Pittsburg and York Springs.

Fare to Pittsburg. The company is authorized by the proprietors of Passenger lines on the Pennsylvania improvements, to receive the fare for the whole distance from Baltimore to Pittsburg. Baltimore to Pittsburg—Fare through, \$9 and \$10.

Afternoon train. This train leaves the ticket office daily, Sundays excepted, at 3 $\frac{1}{2}$  p.m. for Cockeysville, Parkton, Green Springs, Owings' Mills, etc.

Returning, leaves Parkton at 6 and Cockeysville and Owings' Mills at 7, arriving in Baltimore at 9 o'clock a.m.

Tickets for the round trip to and from any point can be procured from the agents at the ticket offices or from the conductors in the cars. The fare when tickets are thus procured, will be 25 per cent. less, and the tickets will be good for the same and following day any passenger train.

D. C. H. BORDLEY, *Sup't.*  
Ticket Office, 63 North st.

31 ly

**CENTRAL RAILROAD-FROM SAVANNAH**

to Macon. Distance 190 miles.

This Road is open for the transportation of Passengers and Freight.

Rates of Passage, \$8 00. Freight—

On weight goods generally... 50 cts. per hundred.

On measurement goods... 13 cts. per cubic ft.

On brls. wet (except molasses and oil).....\$1 50 per barrel.

On brls. dry (except lime)... 80 cts. per barrel.

On iron in pigs or bars, castings for mills, and unboxed machinery..... 40 cts. per hundred.

On hhd. and pipes of liquor, not over 120 gallons.....\$5 00 per hhd.

On molasses and oil.....\$6 00 per hhd.

Goods addressed to F. WINTER, Agent, forwarded free of commission.

THOMAS PURSE, 40 Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

Gen'l. Sup't. Transportation.

**WESTERN AND ATLANTIC RAILROAD.**

The Western and Atlantic Railroad is now in operation to Marietta, and will be opened to Cartersville, in Cass county, on the 20th of October—and to Coosa Depot, (formerly known as Borough's,) on the 20th of November.

The passenger train will continue, as at present to connect daily (Sundays excepted) with the train from Augusta, and the stage from Griffin.

CHAS. F. M. GARNETT,  
*Chief Engineer.*

43

**LITTLE MIAMI RAILROAD. -- DIS-**

tance 65 $\frac{1}{2}$  Miles. Fare, \$1 50. From 1st

November to 1st March Passenger

Trains leave Cincinnati for

Xenia at 11 o'clock, A.M.

Returning, leaves Xenia at 8 $\frac{1}{2}$  o'clock, A.M.

Freight Trains run daily, Sundays excepted.

At Xenia, Passenger Trains connect with daily

lines of stages to Columbus, Wheeling, Cleveland

and Sandusky city.

W. H. CLEMENT,  
*Supt. and Engineer.*

1y1

**LEXINGTON AND OHIO RAILROAD.**

Trains leave Lexington for Frankfort daily,

at 5 o'clock a.m., and 2 p.m.

Trains leave Frankfort for Lexington

daily, at 8 o'clock a.m. and 2 p.m. Distance,

28 miles. Fare \$1 25.

On Sunday but one train, 5 o'clock a.m. from

Lexington, and 2 o'clock p.m. from Frankfort.

The winter arrangement (after 15th September to

15th March) is 6 o'clock a.m. from Lexington, and

9 a.m. from Frankfort, other hours as above.

35 ly

**NICOLL'S PATENT SAFETY SWITCH**

for Railroad Turnouts. This invention, for

some time in successful operation on one of the principal

railroads in the country, effectually prevents

engines and their trains from running off the track

at a switch, left wrong by accident or design.

It acts independently of the main track rails, being

laid down, or removed, without cutting or displacing

them.

It is never touched by passing trains, except when

in use, preventing their running off the track. It is

simple in its construction and operation, requiring

only two Castings and two Rails; the latter, even if

much worn or used, not objectionable.

Working Models of the Safety Switch may be

seen at Messrs. Davenport and Bridges, Cambridge-

port, Mass., and at the office of the Railroad Journal,

New York.

Plans, Specifications, and all information obtained

on application to the Subscriber, Inventor, and Pat-

entee.

G. A. NICOLLS,  
Reading, Pa.

ja45

**KEARNEY FIRE BRICK. F. W.**

BRINLEY, Manufacturer, Perth Amboy,

N. J. Guaranteed equal to any, either domestic or

foreign. Any shape or size made to order. Terms,

4 mos. from delivery of brick on board. Refer to

James P. Allaire, } New York.

Peter Cooper, }

Murdock, Leavitt & Co. }

J. Triplett & Son, Richmond, Va.

J. R. Anderson, Tredegar Iron Works, Rich-

mond, Va.

J. Patton, Jr. } Philadelphia, Pa.

Colwell & Co. }

J. M. L. & W. H. Scovill, Waterbury, Con.

N. E. Screw Co. } Providence, R. I.

Eagle Screw Co. }

William Parker, Supt. Bost. and Worc. R. R.

New Jersey Malleable Iron Co., Newark, N. J.

Gardiner, Harrison & Co. Newark, N. J.

25,000 to 30,000 made weekly.

35 ly

**DAVIS, BROOKS & CO., 30 WALL ST.,**

have on hand for sale,

Railway Iron of different sizes—heavy and flat

bars.

A Steam Pile Driver—built by "Dunham & Co."

—in complete order; has never been used, and for

sale a bargain. Cost originally \$5,000. Also 12

Railway Passenger Cars, that have never been used,

which will be sold a bargain.

8 ut

**PROVIDENCE & WORCESTER R. R.**

Notice to Contractors. The time for receiving

proposals has been extended to the 11th March. The

route is ready for examination, and blank proposals

and specifications may be had at Worcester and Providence.

All proposals must be sealed, accompanied by names of references and surities, and directed to the engineer, at Providence, prior to the

above date.

8 ut T. WILLIS PRATT, *Engineer.*

**MACHINE WORKS OF ROGERS,**

Ketchum & Grosvenor, Patterson, N. J. The

undersigned receive orders for the following articles,

manufactured by them of the most superior description

in every particular. Their works being extensive

and the number of hands employed being large,

they are enabled to execute both large and small orders

with promptness and despatch.

Railroad Work.

Locomotive steam engines and tenders; Driving

and other locomotive wheels, axles, springs & flange

tires; car wheels of cast iron, from a variety of patterns,

and chills; car wheels of cast iron with wrought

tires; axles of best American refined iron; springs;

boxes and bolts for cars.

Cotton, Wool and Flax Machinery

of all descriptions and of the most improved patterns,

style and workmanship.

Mill gearing and Millwright work generally;

hydraulic and other presses; press screws; callen-

ders; lathes and tools of all kinds; iron and brass

castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR,

a45 Paterson, N. J., or 60 Wall street, N. York.

**TO RAILROAD COMPANIES AND MANUFACTURERS**

of railroad Machinery. The subscribers

have for sale Am. and English bar iron, of all

sizes; English blister, cast, shear and spring steel;

Juniata rods; car axles, made of double refined iron;

sheet and boiler iron, cut to pattern; tiers for loco-

motive engines, and other railroad carriage wheels,

made from common and double refined B. O. iron;

the latter a very superior article. The tires are

made by Messrs. Baldwin & Whitney, locomotive

engine manufacturers of this city. Orders addressed

to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in

the order, a fit to those wheels is guaranteed, saving

to the purchaser the expense of turning them out inside.

THOMAS & EDMUND GEORGE,

ja45 N. E. cor. 12th and Market sts., Philad., Pa.

**THE SUBSCRIBERS, SOLE AGENTS**

for the sale of

Codorus, } Pig Iron.

Glendon, }

Spring Mill, and }

Valley, }

Have now a supply, and respectfully solicit the

patronage of persons engaged in the making of Ma-

chinery, for which purpose the above makes of

Pig Iron are particularly adapted.

They are also sole Agents for Watson's celebrated

Fire Bricks and prepared Kaolin or Fire Clay,

orders for which are promptly supplied.

SAM'L KIMBER, & CO.,

59 North Wharves,

Jan. 14, 1846. [1y4] Philadelphia, Pa.

**GEORGE VAIL & CO., SPEEDWELL IRON**

Works, Morristown, Morris Co., N. J.—Man-

ufacturers of Railroad Machinery; Wrought Iron

Tires, made from the best iron, either hammered or

rolled, from 1 $\frac{1}{2}$  in. to 2 $\frac{1}{2}$  in thick.—bored and turned

outside if required. Railroad Companies wishing

to order, will please give the exact inside diameter,

or circumference, to which they wish the Tires

made, and they may rely upon being served accord-

ing to order, and also punctually, as a large quantity

of the straight bar is kept constantly on hand.—

Crank Axles, made from the best refined iron;

Straight Axles, for Outside Connection Engines;

Wro't. Iron Engine and Truck Frames; Railroad

Jack Screws; Railroad Pumping and Sawing Ma-

chines, to be driven by the Locomotive; Stationary

Steam Engines; Wro't. Iron work for Steamboats,

and Shafting of any size; Grist Mill, Saw Mill and

Paper Mill Machinery; Mill Gearing and Mill

Wright work of all kinds; Steam Saw Mills of sim-

ple and economical construction, and very effective

iron and Brass Castings of all descriptions.

ja45ly

**WHARF BOLTS. THE SUBSCRIBERS**

are now ready to Contract to deliver

Wharf Bolts, at a reduction of 10 per cent. on last

year's prices.

SAM'L KIMBER, & CO.

8 ut 59 North Wharves, Philadelphia.

44 ly



**RAILROAD IRON AND LOCOMOTIVE**  
Tyres imported to order and constantly on hand  
by **A. & G. RALSTON**  
Mar. 20th 4 South Front St., Philadelphia.

**THE NEWCASTLE MANUFACTURING**  
Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gear- ing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.  
**ANDREW C. GRAY,**  
President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS.**  
etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc. —respectfully offers to dispose of Company, State Rights, etc., under the privileges of letters patent to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of improving their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

**W. Mc. C. CUSHMAN, Civil Engineer,**  
Albany, N. Y.

Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

### WELDED WROUGHT IRON TUBES

From 4 inches to  $\frac{1}{2}$  in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STRAM BOILER PRESS.

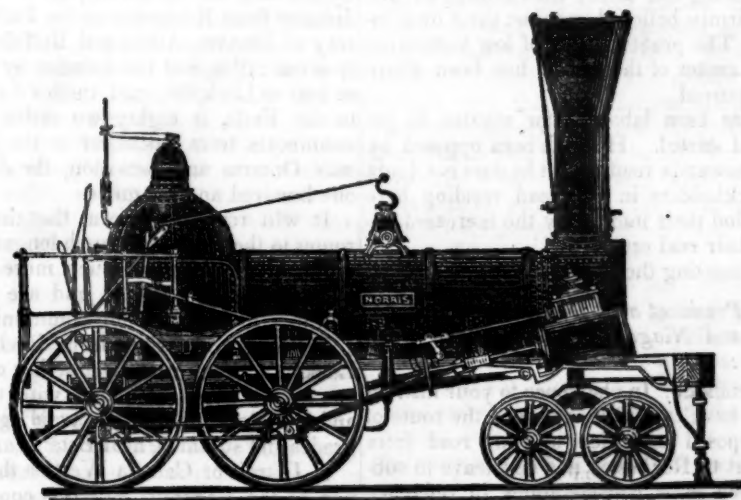
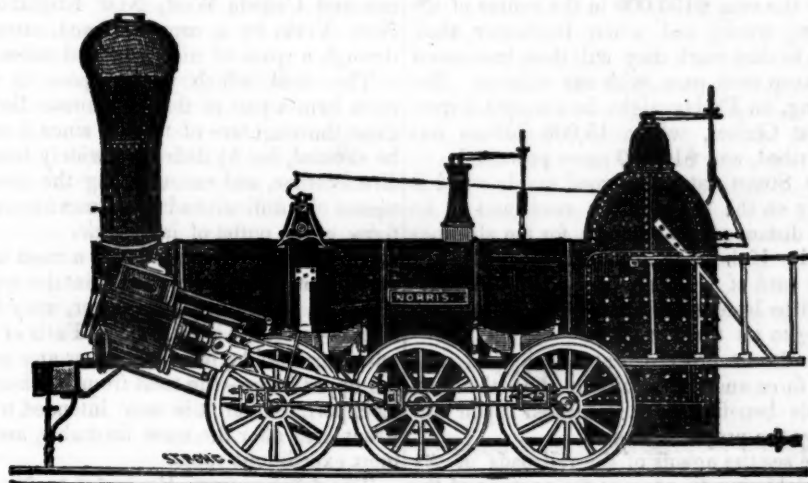


Manufactured and for sale by

**MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets,  
PHILADELPHIA.

## NORRIS' LOCOMOTIVE WORKS.

BUSH HILL, PHILADELPHIA, Pennsylvania.



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	1,	15 inches	Diameter of	Cylinder,	× 20 inches	Stroke.
"	2,	14	"	"	× 24	"
"	3,	14 $\frac{1}{2}$	"	"	× 20	"
"	4,	12 $\frac{1}{2}$	"	"	× 20	"
"	5,	11 $\frac{1}{2}$	"	"	× 20	"
"	6,	10 $\frac{1}{2}$	"	"	× 18	"

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion.

Castings of all kinds made to order: and they call attention to their Chilled Wheels for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

**RAILROAD IRON.—THE MARYLAND AND NEW YORK IRON AND Coal Company** are now prepared to make contracts for Rails of all kinds. Address the Subscriber, at Jennon's Run, Alleghany County, Maryland.

**WILLIAM YOUNG,**

President.

**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Bituminous Coal and Iron Ore*, of the first quality, at Ralston, Lycoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years. The coal will not cost more than \$1 to \$1.25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

**W. R. CASEY, Civil Engineer,**

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x13 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45 $\frac{1}{2}$  feet two stories high, with a shed part 45x20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS, 48 State st.,** or to **CURTIS, LEAVENS & CO., 106 State st., Boston,** or to **A. & G. RALSTON & Co., Philadelphia.**

**CYRUS ALGER & CO., South Boston Iron Company.**

### Rochester, Lockport and Niagara Falls Railroad.

We have had upon our table for some time past, Mr. C. B. Stuart's report of his examinations and estimate for a railroad from Rochester to Lockport direct, and the reconstruction of the present road from thence to the falls. The distance from Rochester to Lockport is 56 miles, and from there, by a relocation of a part of the present line—20 or 76 miles—whereas by the way of Buffalo it is put down at 97 miles and by the lake and steamboat 106 miles. It will be seen by the report, which we give entire, except the appendix, which embodies much valuable information in relation to railroads, drawn from reliable sources, of course—as much of it is from the *American Railroad Journal*—that the subject is presented in a very favorable light, holding out strong inducements for investment, certainly for those immediately interested in the road.

Mr. S. does not give the grades and curves, but from the nature of the country, we can readily imagine them to be of the most favorable character.

This is an important link in the great western chain as it will be in almost a direct line to the falls, Hamilton, Detroit and St. Josephs.

It is proposed to cross the Niagara river, a short distance below the falls, on a wire suspension bridge, of 700 feet span and more than 200 feet above the water, and thus connect with the Great Western railroad through Canada West, via. Hamilton and London to Windsor opposite Detroit, and there to connect with the Central railroad through Michigan to St. Josephs—and ultimately around the lake to Chicago and the west!

It appears by the movements at Rochester and along the line, that the people are quite in earnest, though it will of course meet with opposition from some who are interested in the present line to Buffalo, yet we feel quite sure that the regular increase of business by the end of three years, when we may presume this road will be completed, will furnish business enough to yield fair returns upon both roads; but whether it does or not, we have not a doubt but that this road will be constructed as "direct lines," between important points are to become in this country, as in England, the order of the day.

We find in the "Rochester American," of the 14th inst., the following account of a meeting of the citizens of Rochester, in furtherance of this road, at which Mr. Stuart, the engineer who has it in charge made statements very satisfactory in relation to the prospect of obtaining the necessary amount of capital for the work. When the people along the line have shown their confidence in the enterprise, we understand Mr. Stuart is to visit Boston and New York, to offer the citizens an opportunity to take the balance, and we hope he may meet with a favorable reception.

**Railroad Meeting.**—An adjourned meeting of the citizens of Rochester, in furtherance of the Lockport and Rochester railroad was held last evening at the court house, Hon. S. Miller in the chair. C. K. Amsden, Esq., was appointed secretary.

C. B. Stuart, Esq., reported in behalf of himself and others, the progress made in respect to obtaining subscriptions to the stock.

The returns from the wards are partial, there being several papers unreturned which are believed to contain subscriptions. The following shares are reported:

1st ward.....	75 shares.
2d ".....	30 "
5th ".....	118 "
6th ".....	54 "
7th ".....	16 "
	293

Mr. Stuart proceeded to say that on Tuesday last he attended a meeting in the town of Clarkson, at which \$10,700 was subscribed, and pledges given for \$4,400 more the present week. On Wednesday evening, he attended a large meeting of farmers at Ridgeway. Stock was taken to the amount of \$4,000, and \$6,000 more promised. On Thursday evening he attended a crowded meeting at Lockport. The subscriptions in that village previously, amounted to \$132,000, to which \$16,800 was that evening added. The citizens of Lockport promised to make the sum \$150,000 in the course of the present week; and when Rochester shall come to that mark they will then start anew and keep even pace with our citizens. Returning, on Friday night, he attended a meeting at Gaines, where 15,000 dollars was subscribed, and \$10,000 more promised.

Mr. Stuart stated that good maple wood is selling on the route of this road, and at no great distance from this city, for ten shillings a cord. If the road were built, the price of every cord of wood consumed in Rochester would be lessened one dollar—an immense saving to all the citizens.

Mr. Stuart proceeded at length, and with great force and perspicuity to show the inestimable benefits to be conferred upon our city by the proposed road.

We see the agents of the railroads at Albany lobbying to prevent the passage of the bill reducing the fares; thus acting, as Mr. Stuart firmly believed, against their own interest. The profitableness of low fares is not a mere matter of theory; it has been abundantly proved.

He has been laboring for months to get this road started. He had been opposed by the Tonawanda road. But he does not doubt that stockholders in that road residing here would find their interest by the increased value of their real estate.

The meeting then adjourned, *sine die*.

**To the President and Directors of the Lockport and Niagara Falls Railroad Company:**

GENTLEMEN: In obedience to your instructions, I have carefully examined the route of the proposed extension of your road from Lockport to Rochester, and beg leave to submit to you some considerations in reference to that continuation.

It is now some ten years, since the wants of the public seemed to point to the necessity of this work, but since the revival of the spirit of improvement in this country, new motives for its accomplishment have presented themselves, which now urge its immediate consummation. It is my purpose to present these motives in a brief view, which will serve to show the importance and value of this line, both to the stockholders and to the community—as an investment, and as a public convenience.

There is now a line of railroads extending from Boston to Rochester, a distance of four hundred and sixty-one miles, and another from Lockport to Niagara, a distance of twenty-two miles, (but which will be shortened two miles, the direct distance being but sixteen miles,) leaving only the space of fifty-six miles, between Lockport and Rochester, to be filled up, to open the shortest line from the eastern cities, to one of the greatest natural wonders of the world; as well as the most direct route from Boston to Detroit, and other places in the great west.

It is now known to the public that the capital stock of \$6,000,000 has been secured, to open a line of railroad through Upper Canada, to connect with the works in actual progress across the centre of the state of Michigan—thus joining the fertile lands of Michigan and Canada West, New England and New York, by a common band, extending through a space of nine hundred miles.

The road which you propose to make must form a part of this continuous line and great thoroughfare of travel; since it cannot be avoided, but by deflecting widely from the direct course, and encountering the inconvenience of a difficult and sometimes impassable ferry, at the outlet of lake Erie.

The location of your road is a most happy one. It matters not to what point the western traveller, arriving at Rochester, may be directed—whether it be for the Falls of Niagara, for Buffalo, for Canada, or any part of the upper lakes—the road from Rochester to Lockport, which it is now intended to construct, will offer the most favorable, and the most expeditious route.

The distance from Rochester to Niagara, by this line will be seventy-six miles. The distance from Rochester to the Falls, by the way of Batavia, Attica and Buffalo, is ninety-seven miles, and the distance by the packet boat to Lockport, and thence by railroad, to the Falls, is eighty-two miles. By the steamboats, from Rochester to the Falls, via lake Ontario and Lewiston, the distance is one hundred and six miles.

It will readily be seen, that the existing routes to the Falls, are much longer than the proposed road, require much more time, and great additional expense, and are not at all adequate to the travelling community.

In going to the Falls from Rochester, via Lockport, there will be a saving of twenty-one miles, when compared with the Attica and Buffalo route, besides avoiding the high grades and summits, near Batavia and Attica.

If Detroit or Canada West be the destination of the traveller, and the contemplated bridge across the Niagara river be established at the narrowest and most appropriate point, or the steam ferry be used at that place, the saving of distance from Hamilton to Rochester, will be twenty-four miles, by taking the Lockport route. If it should be desirable to have a direct line to Buffalo, a road could be constructed nearly straight from Lockport, with no grades over ten feet to the mile, that would not exceed the route, via Attica, more than two miles in distance, which would be more than compensated for, by the great difference in the grades on the Attica route;



while the distance from the proposed ferry at Fort Erie, is no greater via Lockport, than it is by Attica to Rochester. So that, view the subject in what light we may, *this* is the true line of western trade and travel, and possesses natural and physical advantages which are enjoyed by none other. [See map, annexed.]\*

These positions are *facts*, and cannot be controverted. We pass therefore to the important inquiry, **WILL THIS LINE PAY?**

The traffic upon which its advocates justly count, are:

1. The pleasure travel to the Falls of Niagara, either in going or in returning.
2. A fair diversion of the Buffalo travel.
3. The way traffic of the line.
4. The Canada travel, and that passing through Canada to the western states.
5. The transportation of produce, merchandise, coal and iron, to and from the great west and Canada.
6. The carrying of the United States mail.

To estimate the amount and value of the traffic from all these sources, with any great degree of accuracy, would be impossible, but we may fairly assume that the aggregate travel, exclusive of that which will be brought by the Canada road, (at the low fare charged) will not be less than the number of the through passengers that in 1844 passed over the Auburn and Syracuse railroad, viz: 80,000. The way passengers on this line will be equal to 60,000—which is 10,000 less than the way travel on the Rochester and Auburn railroad in 1844. This large amount of anticipated way travel is here justified by the fact, that there is no part of the present line from Boston to Buffalo, which passes through a more productive, or more highly cultivated country, than that bordering the celebrated Ridge road, or on which are found an equal number of flourishing places, as the villages of Brockport, Clarkson, Albion, Gaines, Medina, Hartland, Lockport, Lewiston, Niagara Falls, and other villages which are strung along the route of your road, embracing within a territory of thirty miles by eighty, a population of over 130,000. And in assuming 80,000 for the number of through passengers, independently of the accession which will be gained from the completion of the Canada railway, I am fully justified by the fact, that 50,000 have visited the Falls the last year, while there are portions of the present line between Albany and Rochester, that carry more than this number.

When to this is added the rapid increase of the yearly pleasure travel to Niagara, being more than ten per cent. a year, and which will be largely augmented by the attraction of the suspension bridge, and the large and elegant hotels that are to be erected the coming season, it cannot be doubted that this increase of summer travel would be more than doubled, and would counterbalance any loss your road might sustain, by competing with rival routes for the Buffalo travel.

To these quantities must still be added the travel which must pass to and from Canada

[\* We should like to see the map referred to—there was none in the copy of the report received by us.—Ed. R. R. J.]

—that to which existence will be given by the simultaneous opening of the Gt. Western railway—an enterprise to which it is believed all the companies from the Niagara to the Hudson will be indebted for an increase of not less than 50,000 persons annually.

In this estimate of business, I count nothing on the great and rapid increase of travel which has been experienced on the present line of railways, and which is to be looked for in an augmented ratio, under the advancing prosperity of the region bordering on the western lakes.

During the past season of navigation, there has passed through Rochester nearly *one thousand* travellers per day, of which number, more than one-half were carried on canal boats, at a charge as high as it is proposed to tax on your road. Estimating this travel on the canal at five hundred per day for six months only, and it makes ninety thousand, of which number it would be safe to estimate fifty thousand as emigrants, who would undoubtedly pass over your road at *one and a quarter cents* a mile, as it will be admitted that this route will afford the western emigrant a rapid and cheap transportation; not only saving the expenses often incurred in waiting for a steamer at Buffalo, but it will enable him to arrive at his destination in the west in time to prepare the ground for a summer crop, and thus take the advantage of the first season at his new home.

We may justly, therefore, and with all moderation, base our calculations for this line, on its completion, and the completion of its great extension in Canada, on an aggregate traffic, equivalent to one hundred and thirty thousand through passengers, of the first class, and fifty thousand of the second class, and sixty thousand way passengers, at the *low* rates named in the estimate. If only *two-thirds* the number estimated should be transported over the road on its completion, a charge of *three cents a mile* for through passengers, (which is nearly twenty-five per cent. less than is now charged,) would make the sum I have estimated. But I have put the fare low to avoid competition, and induce a large amount of business.

As this road is to be built with a heavy iron track, on very light grades, gradually descending to the east, and is allowed by its charter to carry freight at *all* seasons of the year, without paying tribute or tolls to the state, and will, when completed, form an important link in the chain of uninterrupted railways of nine hundred miles in length—it cannot be doubted for a moment, that it must always command a large and profitable freighting business. The completion of this railroad would insure the construction of an iron track from Rochester to Schenectady, which would enable the central line of railways to compete successfully with the present Erie canal for the western transportation.

The completion of the railways already chartered, and in progress, to connect the railways of central and western New York with those of Pennsylvania, will, it is thought, add largely to the amount of freight on the road. Add to this the large amount of western

produce, that would seek this route to an eastern market, and the merchandize for the far west and Canada, that would be transported over it, even during the suspension of canal and lake navigation, and it would seem to be within safe bounds, to estimate the through freight, at not less than an average of one hundred and twenty tons a day each way, (about the load of *four* canal boats,) or in round numbers, at one hundred thousand tons a year, and the way freight at twenty-five tons annually.

#### FINANCES.

The present capital of the company which represents the amount that has been expended on the part that is now in operation between Lockport and Niagara Falls, is.....	\$175,000
To which add the sum necessary to supply this line with an <i>edge</i> rail, re-grade parts of it, and finish it in the best style, say.....	175,000
Add to this again the estimated cost of the road from Rochester to Lockport—56 miles grading and bridging [per estimates].....	\$280,000
56 miles superstructure, with <i>Edge</i> rail.....	420,000
Add for branches and switches.....	10,000
Land damages and fencing.....	75,000
Damage to buildings, etc.....	25,000
Engineering & contingencies.....	50,000
Total.....	860,000
For 8 locomotives [8 wheel].....	60,000
For 20 first class cars, do.....	30,000
For 30 second do. do.....	20,000
For 8 baggage wagons do.....	6,000
For 50 freight do. do.....	24,000
For depots & water stations.....	25,000
	165,000
	1,025,000

And we obtain for the total investment for the completion of the whole line, from Niagara to Rochester, and supplied with depots and furniture.....1,375,000

We may say in round numbers, *fourteen hundred thousand dollars*.

#### PROBABLE INCOME.

In estimating the *revenue*, I shall assume a much lower rate of charge for transportation of passengers and freight, on the substantial road which it will be for your interest to build, than that which is now adopted on the existing lines. In this country, the results of experience abundantly show, that wherever it is an object to construct a railway, it is to the last degree desirable to obtain a heavy rail. On numerous roads where the strap or light bar was originally laid, it had been replaced by one better adapted safely to permit rapid travelling, to sustain the severe shocks incident to a heavy trade, and to admit of constant and economical use: of such the Columbia, Newcastle and Frenchtown, Baltimore and Ohio, and others might be referred to as instances. It is believed that with a flat bar, your road would be wholly inadequate to the travel and transport which it ought, and if properly constructed, assuredly would command—that it would be unsafe for passengers (at high rates of speed,) would be subject to enormous expense for repairs, and could not be economically used for the conveyance of tonnage—whereas, with a heavy iron rail, it would be competent to all its objects, could be worked with economy,

would require but a moderate expense for repairs, and would be so much more productive and valuable, as to justify the additional expense necessary to purchase an edge rail of not less than *eighty* tons per mile.

Two cents a mile for through passengers, or a charge of *one dollar and fifty cents* from Rochester to the Falls, (the present rate by railroads, via Buffalo, is now \$3 25,) and *two and a half cents* a mile for way passengers, is believed to be ample for the liberal support of the company, if we have not over estimated the number.

	ESTIMATE.	
130,000 passengers, [first class cars,]	\$1 50.	\$195,000
50,000 " [second " ]	1 00.	50,000
60,000 way " [half way.]	1 00.	60,000
100,000 tons through freight,	1 00.	100,000
25,000 tons way "	0 60.	15,000
76 miles U. States mail contract,	\$150 00.	11,400

Total receipts..... 431,400  
Deduct for actual expenses, [exclusive of interest on capital,] *one-third* the whole receipts, the average of the eastern roads... 143,800

Net receipts.....\$287,600  
or over *twenty per cent.* on the whole capital of *fourteen hundred thousand dollars.*

That the estimate of *one-third* will be ample for the expenses of your road, it is only necessary to show, that the Utica and Schenectady railroad, seventy-eight miles in length, transported in 1844, nearly the amount of freight and passengers estimated on your road (which were about the average for the last eight years,) at an expense of \$132,838, which is less than the amount estimated.

It will be seen that these roads being nearly equal in length, and the business equal, the expenses ought to be likewit equal, with this difference only, that the Utica and Schenectady railroad is laid with a slight strap, or flat bar, and yours is to be a substantial and durable iron track, which will make a difference of at least *fifty per cent.* in the cost of transportation.

But as it is my intention to avoid every chance of over estimating, the probable results, I shall take the estimate of *one-third* the receipts for the expenses of your road, and in my estimate of the number of passengers I have assumed for your road, on the completion of its connection, with those through Pennsylvania, Canada West and Michigan, no more than is *now* carried on some of the roads west of Albany, and at *half the price* charged on them.

As there may be doubts in the minds of some (although I have none) as to the location of the Canada railroad at Niagara Falls, I will, to satisfy the most skeptical, deduct the 100,000 tons of freight, and 100,000 through passengers, that it was estimated the Canada road would create, and see what would be the probable value of the stock, should it only connect with the Buffalo railroad at Niagara Falls, and the branch road to Lewiston—and we have for receipts as follows:

80,000 through passengers, \$1 50.....	\$140,000
60,000 way " 1 00.....	60,000
25,000 tons way freight, 0 60.....	15,000
76 miles U. States mail, \$150 00.....	11,400

Total receipts..... 226,400  
Deduct *one-third* for expenses..... 75,466

Income.....\$150,934

or *eleven per cent.* on the capital, at the low price of *two cents* a mile for through passengers, and *two and a half cents* for way travel. Call this two and a half cents and three cents, and on the amount of business estimated, it would net *fifteen per cent.* stock, and this too without any travel from the Canada road, and without building the road from Lockport to Fort Erie, which road would undoubtedly be made, if the Western railroad should, by any possibility, be located there. This route, as has been shown, would be only 77 miles from Fort Erie to Rochester, and on the natural inclined plane, to the Hudson, which would always give this line great advantage in competing for western trade and travel with the road via Attica.

In view of all these facts, I think no *impartial* or *discriminating* reader will doubt, that this road will be (without the Canada connection,) a secure and permanent *ten per cent. stock*, and with that connection a *fifteen* or *twenty per cent. stock*.

The result in either of these cases, may appear extravagant to those who, without informing themselves of the reasons why some roads pay dividends and others do not, reason and decide from what they happen to know of some unfortunate work, constructed at an expense largely disproportioned to its objects, located where, in the nature of things, it could command but a meagre amount of business, defective in strength, or other qualities requisite to economy and success in using it. But in such a case as is presented by this road, there is no mode of estimate or calculation on such a route, located on the great thoroughfare from east to west, and bordered by a fertile country, and dense population, that will not justify all that need be claimed or presumed for it.

The connection with the Canada railway, at Niagara, will undoubtedly be made. Its practicability is demonstrable, and when completed, it will offer the means of obtaining the most feasible line for the travel of the northwestern states to and from the seaboard, and to the seat of our national government.

The only difficulty that could possibly be urged, that arising from the width and depth of the Niagara, cannot now be entertained. The bridge is practicable; and we have now before us the estimate and report of an experienced engineer, and one entirely familiar with the subject, and an offer to build the work for the sum named in his estimate, (\$220,000) and submit it, on its completion, to a severe and satisfactory test of its strength.

The "*right of way*," usually a large item in the cost of railroads, when made through a fertile and populous country, will on this road, be unusually small, probably not exceeding \$500 dollars per mile. Considerable portions of the several lines surveyed, have already been released without charge, and from the interest manifested by the landholders, further gratuitous cessions are anticipated.

I leave for a future examination and report the question of the Batavia terminus, and also the comparative merits of the different lines surveyed for your road, between Lockport

and Rochester. Respectfully submitting these views, I have the honor to be your obedient servant,  
CHAS. B. STUART, Chief Eng.

#### Midland Railway Company--General and Special Meetings.

The half-yearly general meeting of the proprietors of the Midland railway company was held on Monday, at the station, Derby; George Hudson, Esq., M. P., in the chair.

The chairman read the report of the directors as follows:—

"It is a source of much satisfaction to the directors that they are enabled to announce a net balance of 197,888*l.* 7*s.* 3*d.*, which will enable the proprietors to divide—

Upon each 100*l.* of the consolidated stock...£3 13 9  
Upon each 100*l.* of the preferential stock... 3 13 9  
And upon each 100*l.* of the Birmingham and Derby consolidated stock..... 3 0 0

And leave a reserve of upwards of 14,000*l.* towards the next half year.

"The increase over the corresponding half of last year has been—

In passengers.....£47,344 13 11  
In goods..... 11,800 0 0  
In minerals..... 5,756 0 4  
In parcels..... 1,914 17 3  
In cattle..... 2,627 9 8

"The total increase in the receipts of the half year has been 69,305*l.* 5*s.* 8*d.*

"The proprietors will perceive an increase in the expenditure of the company, particularly in the locomotive department; this is easily accounted for from the large increase in the traffic, requiring 72 engines daily to work it.

"The holders of the 40*l.* shares will receive half a years interest from the passing of the act, June 30, 1845, to the 31st of December last, after the rate of 4*l.* per cent per annum upon the 2*l.* deposit, and also interest after the same rate upon the second call of 4*l.* from the 6th of October last to the same period.

"The whole of the line between Sheffield and Rotherham the directors have relaid with new rails, chairs and sleepers.

"The directors are also relaying a portion of the line north of Derby, which at present is constructed of rails a lighter description than any other part of the railway.

"The directors have determined upon erecting the electric telegraph along the whole line, and they confidently anticipate from it a great increase of safety, as well as regularity. The small length they have at work through the clay-cross tunnel they find to be most useful.

"Since the last general meeting, the directors have let the works on the Nottingham, Newark and Lincoln railway, to Messrs Craven and sons, and the works on the Syston and Peterborough line, from Syston to Melton, and from Stamford to Peterborough to Mr. William Worswick; both contracts are to be completed during the next summer, and satisfactory progress is making on both these lines. They have also let the works for forming the junction at Sheffield with the Sheffield and Manchester railway to Messrs. Mawson, Waring, and co., who are getting on satisfactorily.

"The following directors retire at this



meeting:—Sir Oswald Moseley, Bart., Mr. Hudson, M. P., and Mr. Ellis, all of whom are eligible for re-election."

The following is an abstract of the accounts laid before the meeting:—

**Statement of Capital Account from June 30, to December 31.**

Dr. Amount expended to June 30, 1845.....	£6,327,690 16 8
Further charges in the half year ending Dec. 31, 1845—	
Works of roads and stations.....	£13,983 6 8
New wagons, etc.	18,513 5 0
Law charges.....	522 8 2
	33,018 19 10

Parliamentary expenses for new lines.....	53,821 17 7
Deduct profit on shares.....	20,844 7 6
Land and compensation.....	105,615 3 1
Rails, chairs, sleepers, etc.....	123,883 9 10
Payments to contractors—	
On account Syston and Peterboro' line.....	3,000 0 0
Ditto Nottingham and Lincoln.....	9,618 17 10
	12,618 17 10
	275,395 0 10
	636,104 17 4
Balance.....	60,203 11 11
	6,696,308 9 3

Cr. Amount received on account of shares to June 30, '45.....	4,528,014 3 3
Do. debentures.....	1,662,767 6 6
Do. loan notes.....	93,850 0 0
	6,284,631 9 9

Amount received during half year ending Dec. 31, '45—	
On account of shares.....	439,326 7 2
Do. of interest.....	190 12 4
	439,516 19 6
Less debentures p'd during half year.....	£12,740
Loan notes, do.	15,100—
	27,840 0 0
	411,676 19 6
	£6,696,308 9 3

Less debentures p'd during half year.....	£12,740
Loan notes, do.	15,100—
	27,840 0 0
	411,676 19 6
	£6,696,308 9 3

**Statement of Revenue Account from June 30 to December 31, 1845.**

Dr. To maintenance of way and works.....	£22,129 6 2
Locomotive power.....	37,587 5 11
Coach and wagon repairs and alterations.....	6,562 5 10
Coaching account.....	13,785 15 5
Goods department, direction, etc.....	14,252 16 7
Rates and taxes and government duty.....	15,120 6 3
Debt interest, including that of the late Sheffield and Rotherham railway company.....	37,419 7 2
Half year's dividend, payable on the consolidated Sheffield and Rotherham preferential stock, 6 per cent. per annum.....	4,500 0 0
	151,357 3 4
Balance.....	197,888 7 2
	£349,245 10 6

Cr. Balance of account to 30th of June, 1845.....	£151,011 10 3
Less dividend.....	148,027 7 0
	2,974 3 3

Traffic—	
Passengers.....	204,362 14 0
Horses carriages and dogs.....	8,925 0 3
Parcels.....	13,132 17 9
Cattle.....	4,982 10 11
Mails.....	6,420 13 0
Goods.....	79,160 13 3
Minerals.....	25,281 2 10
	342,165 12 0
Rents.....	4,105 15 3
	£349,245 10 6

	£349,245 10 6
--	---------------

Audited 10th January, 1846.  
John Jackson, and Joseph Cripps, Auditors; J. F. Bell, secretary.

Many passages in this document called forth much applause, which was repeated at its close. It was not deemed necessary to read the accounts, printed copies having been sent to each proprietor several days previously.

The chairman then spoke to the following effect:—Gentlemen it now becomes my duty to move that the report of the directors, which you have just heard read, be received and adopted, and printed for circulation among the proprietors. In doing so I am very happy to think that it will not be necessary for me to detain you by many observation.—

At the same time, perhaps, I may be permitted to offer two or three remarks more in detail on the position of the company than we have thought it necessary to do in the report.

You, gentlemen were the first to make the great experiments of amalgamation, by incorporating three companies into one, and after a year's fair trial of that experiment, it will no doubt interest you to learn the result.

With this view, gentlemen, I have collated the expenditure of the years 1842 and 1843, when the lines were separate, and compared it with the receipts. You will bear in mind that the past year, 1845, was the first year of the amalgamation. You will bear in mind also that these documents are of course, open to inspection, for they are published documents; and I mention this because it may not occur to the proprietors, nor to those who take an interest in these matters, or who feel themselves called upon to lead the public in the direction which it ought to take. Gentlemen, some doubts have been cast on the wisdom of the course which in this amalgamation you adopted; but after the figures and facts which I shall bring forward, I will leave it to any person of sound judgment and ordinary intelligence to say whether it has not been largely beneficial to you as proprietors, as well as to the country generally. I have taken the expenditure of 1842, and the receipts, and have added thereto respectively the same items on the Sheffield and Rotherham line, which at that time was worked separately. I find, gentlemen, that the aggregate expenditures in 1842 of the four companies—the North Midland, Midland Counties', Birmingham and Derby, and Sheffield and Rotherham—amounted to 218,124l.

as near as I can ascertain, for I will not trouble you with the shillings and pence. The receipts during the same period were 438,

200l.—in other words, the expenditure was, as nearly as possible, 50 per cent. on the gross receipts. Gentlemen, in 1843 all those four companies had effected a great reduction in their expenditure, particularly the North Midland, which, it will be admitted on all hands, had at that period brought its expenditure to as low a scale as possible; and therefore in giving the expenditure for 1843, I put it in a very favorable position. The expenditure then for 1843 was 180,335l., and the receipts 443,513l., or an expenditure of about 41 per cent. on the receipts. Gentlemen, I pass over the year 1844, because the lines were worked for one-half that period by the companies separately, and for the other half by the amalgamated company. I do not think, and I am sure my colleagues will agree with me, that the receipts and expenditure of that year can be regarded as a fair criterion of their relative amounts. Now, in the year 1845, the first of the amalgamation, the expenditure amounted to 207,736l., and the receipts, gentlemen, to 625,030l., giving a per centage of 33 on the receipts. Moreover, in 1842, the companies were working as nearly as possible 45 engines a day; in 1843, the number was 48; whereas, in 1845, the average number was sixty-nine engines working on the Midland lines. It must be borne in mind also, gentlemen, that in 1845 the price of all materials used in railway repairs had risen very considerably, as compared with 1842, and particularly iron. Then, too, the government duty on passengers, which I have not separated from the aggregate amounts, must have greatly increased by the increase of passengers, a farther item of difference between the two periods. I have to mention, and I am happy in being able to do so—and you, gentlemen, I am sure will be pleased, being prosperous yourselves, to see others prosperous also—I am happy in being able to state that the officers and servants of the company now receive large remuneration.—It is rather curious, gentlemen, to mark the amount of dividend paid during the periods referred to. In 1842, the dividend of the North Midland company was 2l. 12s. 6d. per cent. per annum; of the Midland Counties', 3l.; and of the Birmingham and Derby, 1l. 13s. In 1843, the dividends were respectively, 3l. 10s., 3l. 8s., and 1l. 13s. This year, gentlemen, your dividend is 6l. 13s. 9d. on the Midland stock. Gentlemen, I am well aware that on this point I may be met, and that it may be argued that similar results would have taken place if the companies had not been amalgamated. I wish any gentleman would stand forward and show any similar case parallel to ours where, without the opening of a single branch, without one mile of extended line, the receipts have increased at the rate of 200,000l. a year. It is all very well gentlemen, to talk of amalgamation as unwise, but let us look at the results. In 1843 your dividend was 3l. 10s., now it is 6l. 13s. 9d.; and such being the case, the public must have been greatly benefitted, especially from the large reduction which we have made in the carriage of goods—for I should be sorry that you should en-

tertain any doubt as to the policy of carrying out fully the great measure which you have adopted, namely, of diminishing the charges. Gentlemen, having stated these facts, it is not necessary that I should add any remarks of my own. I hope that any gentleman connected with the public journals who may have thrown a doubt on the wisdom of amalgamation will, if he cannot get rid of these facts and figures, feel it his duty, in justice to the interests with which he professes to be mixed up, to advocate those measures which in the case of the Midland railway have led to such splendid results. Gentlemen, I do not think I need detain you farther, nor indeed should I have said so much, but for observations that have been made, and which carry with them a certain degree of weight, which seemed to me to require I should show that the great experiment you had the courage to try has been completely successful in all its results. Gentlemen, before the close of the proceedings, I shall have occasion to bring before you many schemes for the extension of the Midland railway; but perhaps it is better that we should dispose of the formal business of the day, after which resolutions bearing on these extensions will be submitted. Perhaps, before I sit down, I may be allowed to take this public opportunity—though of course I cannot be responsible for what is said by editors of newspapers, who no doubt think that, as I am a public man, I am public property—of stating that it is quite untrue, as alleged, that I have any connection whatever with any public journal. Equally untrue (continued the honorable gentleman, laughing) is it that I have forfeited 40,000*l.* rather than complete the purchase of an estate.—Unworthy indeed should I be of your confidence, or of the management of your property, if I could be guilty of such folly with my own. Gentlemen, I now beg to move the adoption of the report.

The honorable gentlemen resumed his seat amid long continued applause.

#### Iron Steamships.

The rapid progress that iron steam-ship building is making in this country, not only for the royal navy, but, more particularly, the mercantile marine, is giving a great impetus to the speculative energies of the ironmasters, whose furnaces are in full blast, and all those connected in this extensive and important branch of mining industry of the United Kingdom. Notwithstanding the numerous railway lines which are now in full traffic, and the hundreds more that will be established within a few years, England has sufficient iron ore and carbonic fuel, to meet all the exigencies for centuries and centuries to come. The adoption of iron for shipbuilding, in preference to wood, there is little doubt, will be general before another quarter of a century, not only for its durability, but buoyancy, compared with the latter. The value of iron, as a material for shipbuilding, has been known for upwards of 100 years, and even the ancients looked upon it as the most useful metal to man. The first iron vessels, or boats, for the purpose of navigation, were built for the canals of this country, and

that so far back as the year 1780; but it was only on a very limited scale. The construction of steam-vessels gave the idea, that iron might be substituted with advantage for wood, and, in 1820, Mr. Manby took out a patent in France for iron steam-boats, when he, and the present admiral Sir Charles Napier, formed a society, and built a vessel at Horsley as a model, and, in the early part of 1822, that experienced officer took the command of the *Aaron Manby* (so named after the projector,) and navigated her from London direct to Havre-de-Grace, and so up the river Seine to Paris. This was the first iron steamer that ever crossed the British Channel, or, in fact, put to sea, which excited the greatest public curiosity at the time among the Parisians, being the first vessel that had come direct from London to the French capital, and that in iron. Another iron steamer was built in 1824, for the navigation of the Shannon, and was put together at Liverpool, crossed the channel to her destination, Lough Derg, which gave rise to this extensive and spirited company now navigating that splendid river. The building of iron vessels, after this success, gradually began to increase, and numerous steamers, and even sailing vessels, of large tonnage, for distant sea voyages, were constructed. Since that period, the progress of iron shipbuilding has made a most wonderful and rapid advance in the annals of the naval history of this country. We not only have now some of the most powerful iron frigates and war steamers in the royal navy, the admiration of all foreign countries; but a commercial fleet of iron steamers, the finest in the world, which have excited the jealousy and emulation of France, and the whole of Europe.

The progress making in this new art of shipbuilding is giving an unequalled impetus to iron mining enterprise and naval improvements. The use of this metal is not confined solely to steamers, but several sailing-ships are in course of construction, in which small auxiliary steam-power is to be employed; and there is very little doubt that iron will be generally adopted in the construction of merchant vessels for long voyages, in conjunction with the screw propeller, so as to enable them to be worked in addition to sails. In the building yards of Liverpool, so much activity never prevailed as at present; and it is with much difficulty a sufficient number of workmen can be obtained, to complete the contracts entered into. Besides the former splendid vessels which have been launched from the stocks at Liverpool, two fine iron ships this week, constructed by Messrs. Vernon & Co., from the plans of Mr. Grantham. The first is the *Windsor*, of 800 tons, which is built for the city of Dublin company; and the *Ajax*, of the same dimensions, for the Cork company. The same firm is building a large steamer, of about 1300 tons, for the Peninsular and Oriental Steam Navigation company, who already have the *Bentinck* and the *Hindostan*, iron steamers of 1800 tons each, running from Calcutta to Suez, besides an order

for two steamers of 700 tons for the Cork company, and one of 300 tons for Fleetwood. Five iron vessels are now building at Messrs. Hodgson & Co.'s works, at the same port; that nearest completion is 250 tons, to be worked by a screw, and is intended for Buenos Ayres; the *Antelope*, of 600 tons, as a packet between Liverpool and the Brazils; a large vessel for the New York trade, of 1500 tons, to be heavily rigged, and with four masts—the two latter to be propelled by the screw, on Mr. Grantham's patent direct principle; also, one for Bombay, of 300 tons; and the fifth for the Woodside ferry. Four vessels have been ordered of Mr. Cato, from the plans of Mr. Grantham—one of 650 tons for the city of Dublin company, to be worked by paddle-wheels; two for the same company, of 300 tons, rigged as three-masted schooners. Messrs. Laird, who built the *Birkenhead* iron steam-frigate, of 1400 tons, recently launched, has five steamers in the course of construction. Several others are on order, to be completed during the present year. Among the many improvements which have been made in iron shipbuilding, is the iron water-tight bulkheads, by C. W. Williams, Esq., of Liverpool, and which are being generally adopted in the construction of steam-ships, as being one of the safest systems hitherto invented for the preservation of life from shipwreck. Mr. John Barber, registrar for the registration and regulation of the coal whippers of the port of London, has long devoted his attention to the discovery of some means of stopping leakages, which might be caused to iron steam-ships of war, by the cannon-shot of the enemy, has, it appears, succeeded in producing a mastic of India-rubber, cork, and other elastic substances, which he has no doubt, will stop any hole that might be made in a vessel by a ball, until she could be brought back to be docked, and which is now under the consideration of the board of admiralty.

We have entered rather fully on this subject, because the building of iron steamers is attracting the serious attention of the French government, and the minister of marine has repeatedly strongly urged the necessity of admitting English wrought and cast-iron into the different dockyards and ports of France, when for shipbuilding, free of duty, if they wish to compete, in a measure, with the rapid advancement making in naval construction in this country, and, no doubt, it will pass the chambers this session, as the majority are in favor of the repeal of the duty on iron—it being fully established France cannot supply her demands. The autocrat Nicholas, of Russia, is also denoting his ambitious genius, to the revolution that the adoption of iron, for naval purposes, is likely to create all over the globe, by having several fine iron steam-frigates immediately constructed in this country.

The detention of the cars on the Georgia railroad till 4 o'clock p.m. yesterday, says the Augusta Chronicle of 22nd January, was caused by the sleet which fell at the head of the road, on Tuesday and Wednesday night. The train was consequently compelled to remain a



Correspondents will oblige us by sending in their communications by Tuesday morning at latest.

### PRINCIPAL CONTENTS.

Rochester, Lockport and Niagara falls railroad.	132
Midland railway company (Eng.)	134
Iron steam ships	136
The Cambria	138
Advantages	138
The new railway	138
The iron trade	138
The railroad meeting (Pittsburg, Pa.)	139
Letter against granting right of way	140
Great Western railroad (Eng.)	141

### AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N.Y.

Saturday, February 28, 1846.

### Railroad Advertisements.

*Spring Arrangements.*—Will the different railroad companies oblige us by sending in, without delay, their advertisements, announcing their spring arrangements, similar to that of the Boston and Maine railroad, on our 1st page.

We are much obliged to Mr. Minot, the efficient and gentlemanly superintendent, for thus early furnishing us with his spring arrangements—and shall be equally so to others for similar favors, and more especially so to those who direct us to insert them upon the terms proposed by us last fall. Shall we not hear soon from other companies than those now in the Journal? We were about to say—that if we do not hear from them, they will from us—but will not, as that might look belligerent.

This company's railroad now includes what has heretofore been known as the Boston and Maine, and the Boston and Maine extension, and extends from Boston to South Berwick, a distance of 73 miles, where it intersects with the Portland, Saco, and Portsmouth railroad, thus making a continuous line to Portland. The Boston and Maine railroad company have two branches, one in Wilmington connecting their road with the Boston and Lowell railroad, which is 2½ miles long,\* the other in Somersworth, N. H., connecting the main line with the manufacturing village of Great Falls; this branch is 3 miles long; so that the entire length of their road is 78½ miles.

### Extension of the Western and Atlantic, Georgia, Railroad.

This road is now in use to Oothcaloga, on the Oostenaula river, a distance of 251 miles from Augusta, and 388 miles from Charleston. The annexed advertisement [see page 130] shows the rates of freight and fare for the distance between Augusta and Oothcaloga 251 miles. The through passage is a fraction over 4 cents per mile, say 4½ cents, which may be considered low under all circumstances, a sparsely populated region and a new country. There remains now, we believe, but about thirty-five miles to be constructed, to complete the road to the Tennessee line; and only about 140 miles to Nashville, when a steam navigation will be opened from Portland in Maine, by the way of Charleston, Augusta and Nashville to St. Louis, and the whole west; and for this last link, a very favorable charter has been granted by the Tennessee legislature, a copy of which is now before us and to which, we shall soon again refer.

\* This was a part of the main line while this company used the Lowell road to Wilmington, and until the company opened their road from Wilmington during the past year.

### New York and Boston direct Railroad.

We have before referred to this project. To the thousands it will appear as a mere matter of speculation; a scheme for defeating, or interfering with, some other project, or work in use; but a part of the line, from this city to New Haven, has been a long time under consideration; it has been surveyed, and a charter granted for that portion lying in Connecticut—a short section of it, between New Haven and Wallingford, is now in use—but the remaining part of the line from Wallingford through Middletown, and Windham county, to Boston, is a new line, of which very little has been said until recently; but it is now becoming a matter of considerable interest, and is favored by gentlemen in whose opinions we have much confidence.

There is now very little necessity, most people will say, for another line of railroad into or out of Boston, and more especially in the direction of New York, as there are now two main lines in this direction, each having two terminations on the Sound waters, and connections with some of the finest and best steamboats in the country; yet the people, residing off from those lines, and cultivating the rugged, yet productive soil, and improving the water privileges intermediate, seeing the benefits derived by others from railroads, and the absolute necessity of having equal facilities to compete successfully with those who have now the start of them in the race, are not of that opinion, as this movement shows; and it is a little singular that the shortest, most direct, and equally favorable, route between these two important cities should be left until the others were all made.

Of the details of this line we are not informed, and therefore give the following notice from the Journal of Commerce of 25th inst., for the purpose of eliciting information from those who are in possession of authentic intelligence on the subject.

While writing the foregoing we have received information from Newport, R. I., in relation to the proposed railroad from there to Fall river, upon which the engineers are now engaged—thus opening another route to Boston.

### Another Route to Boston.

We understand that surveys are now being made with the view of determining the feasibility and probable cost of constructing a railroad between Newport, R. I., and Fall river, Mass., a distance of 18 miles, from which latter place to Boston, there is now a railroad completed, and in operation; and another by a more direct route in course of construction, to be finished during the coming summer.

The examinations already made, demonstrate that a line of very favorable character is attainable. Several enterprising capitalists are, as we understand, enlisted in the project, and it is altogether probable that, very shortly after the charter is obtained, active operations will be commenced. The surveys are being conducted by Messrs. J. N. Adams and T. E. Sickels, from whom an early and report may be expected, when we shall have more to say on the subject.

### Progress of Railway Traffic in Gt. Britain.

We shall give in our next a tabular statement, showing the number of miles of railway in use at the end of each week in the years 1842, 3, 4 and 5, and the average traffic per mile per week, and the total receipts of each quarter and year.

The increase in miles in use is from 1,182 on 1st January, 1842, to 2,043 on 27th December, 1845; and the total receipts for 1842 were 4,341,781*l.*, and in 1845, 5,649,224*l.*

### The Right of Way to Pittsburg.

We promised in our last, and give in the present number the proceedings of a meeting, and of the councils of Pittsburg in favor of, and an able letter signed by eighteen of the prominent men in Philadelphia against allowing, the right of way to the Baltimore and Ohio railroad company to Pittsburg. It was our intention to accompany these documents, which embody the views and reasons in favor and against this important, at least to Pittsburg, vastly important measure; but we are compelled by indisposition, to omit them, at least for the present. We cannot avoid saying however, to those who oppose this measure—a measure fraught with the most lasting and important results to that young giant of western Pennsylvania, PITTSBURG, a city of which every true Pennsylvanian should feel proud—pause! beware how you erect a barrier against, instead of opening an avenue to accommodate, its growing and legitimate business! You had better construct three than to prevent one avenue between Pittsburg and the Atlantic. You will do well to devote your efforts and your capital, as far as necessary, to the construction of the three proposed lines, viz. by the Baltimore and Ohio road which will cost you nothing; by the middle route to Harrisburgh, as that will accommodate interior Pennsylvania; and the northern line, up the Allegheny, and to the west branch of Susquehanna, to Sunbury, Pottsville and Philadelphia, thus at the same time making a line almost to Lake Erie; a line which will soon be completed when the other is in use, or even under way. Philadelphians! Pennsylvanians! here is a field worthy of your best efforts.—One step ahead will do more to benefit Philadelphia than three astern, even if its course is through Baltimore.

### Railroad Fares and Management.

In the last number of the Journal we called attention to the proceedings of the legislature in relation to a compulsory reduction of the fares and management of the railroads west from Albany to Buffalo, —and expressed our views in opposition to the mode of effecting the object. First remove restrictions and enable the companies to adopt lower rates of fare, instead of putting a clog to their heels and then lashing them because they do not run faster.

Since the publication of the last number we have received a copy of the "remonstrance of the Syracuse and Utica company to the legislature against the bill reducing their fare and the appointment of a commissioner," accompanied by a tabular statement showing the receipts both for freight and passengers and the expenses for seven years past.

The charter of this road authorized them to carry freight free of tolls during winter, yet, in consequence of the prohibition to carry freight on the Utica and Schenectady road, the total receipts in seven years for carrying freight on 53 miles of road between Syracuse and Utica was only \$24,122! and upon a portion of that they have been obliged to pay canal tolls, even though allowed by their charter to carry freight free during the close of navigation.

This remonstrance is written in a clear, forcible and dignified style, placing the whole matter in the proper light, and we only wish it could be read by every citizen in the land, as we are confident they would then join heartily in the petition to the legislature, which we published in the last number but one, to remove the restrictions upon carrying freight and thus enable these roads to enjoy privileges equal with other railroads in this country.

It will however speak more forcibly for itself than

we can possibly speak for it, we shall therefore give large extracts from it in our next, together with tabular statements showing the business on the Syracuse and Utica for seven years, and the Utica and Schenectady for ten years, and at the same time show by comparison the advantages which New England roads enjoy over this line, from being allowed to carry freight.

We regret being obliged to defer this remonstrance until next week as it should be speedily and widely circulated, but other matters were partly in type before this came to hand—and a slight indisposition, temporary only, we hope, has placed us under the care of a friend whom we would rather see twice in the street than once when we cannot get there—renders its delay unavoidable. We will endeavor, however, to compensate for the delay by accompanying it with an admirable article from Herapath's London railway journal of 24th January showing the operation of that "great railway monopoly," the London and Birmingham railway company.

Mr. Herapath says very truly, that "the public are very prone to forget *benefits*, though it is to be remarked that they have an extremely retentive memory of grievances!" The people who travel rarely take much pains to show that they have been benefited by a reduction of fares and an increase of speed, though they are seldom bashful in expressing their indignation at any little delay of the train, or even at any seeming delay of companies in adopting the wise opinions of the public, who have little knowledge, at least from experience, in such matters.

The article alluded to shows what an *unshackled* railway company can do in the way of accommodating and benefiting the community, in the reduction of its fare from London to Birmingham from 32s. 6d. and 30s. in the two first class cars and from 25 and 20s. in the two second class cars in 1844, to 25 and 20s. in the two first, and to 14s. in the two second class cars in 1846. In addition to this they have adopted a day ticket, that is, *out and in same day* for 26s. 6d. in first class cars and 18s. 9d. in second class cars, the time is also reduced about 20 per cent., thus doubly benefiting the traveller. Could they have done this if they had been restricted in their business, or their rates *legislated* down before they were prepared for it by having their works completed? Certainly not—neither can any road.

#### The Cambria

Arrived at Boston on the 18th, with London dates of the 3d, and Liverpool of the 4th, inclusive. We have received full files of the London Railway and Mining Journals, and scientific periodicals, but they did not reach us until after our last number had gone to press, though before its date.

Parliament is again in session, and the railway system is again to be the order of the day; there being now before parliament 815 applications for charters, upon which the deposits have mostly been paid. We find several interesting half yearly reports, showing very favorable results in management and substantial improvements in their business. We shall give several of these reports at intervals, and commence this week with that of the "Midland company," of which Mr. Hudson is chairman.

The iron trade is quite active. Prices have advanced since our last, and large contracts have been entered into by the Great Western railway company, at 134. to 136. 5s. per ton, for No. 4 Welsh iron; though an inferior article may be had at from 117. 10s. to 124. per ton on board. From these accounts it will be seen that the manufacture of iron must be

greatly extended in this country, to supply the demand sure to be made within the next five years.

We give in another column from the Mining Journal the condition of the London and other markets for four successive weeks in January.

#### Advantages

*Arising from Amalgamating Several Small Concerns into one. — The Expenditure reduced from 50 to 33 per cent., and the Dividend more than Doubled!*

We copy from the London Railway Express of 24th January, the report of the directors of the Midland railway company, at their half-yearly meeting at Derby on the 12th. Also the remarks of the chairman, Mr. Hudson, from which it will be seen that the affairs of the company are in a very flourishing condition, and that the most favorable results have followed the amalgamation of several small concerns into one. We should like to see the same system adopted in this country wherever it can be well done—simply because greater regularity may be secured, more and better accommodation given to travel and traffic for less money, of course better returns derived by the proprietors.

This statement should be read by every railroad director and shareholder in the Union.

#### The New Railways.

Sir Robert Peel gave notice in the house of commons on the first night, that he would the Monday following move for the appointment of a committee to consider the mode in which that house will deal with the railway bills proposed to be submitted to it in the present session.

On the evening of Monday, Jan. 27th, Sir Robert Peel made the motion of which he had given notice, after a speech of some length, in which he stated there were 606 English, 121 Scotch, and 88 Irish, or, in all, 815 applications, or plans deposited at the board of trade, which involve the construction of no less than 20,675 miles, and the expenditure of not less than 350,000,000! Making every deduction, he said it seemed impossible to supply such an amount of capital for one object without deranging other affairs. It was therefore important that the house consider, at an early period of the session, the principles that ought to govern its course on the subject. He was unwilling, he said, to interfere with enterprise—call it speculation if you please—that it might not be left to private industry and spirit. He was favorably disposed also to the application of British capital in the forwarding of undertakings calculated to promote the general welfare of the empire; and the question is whether there is any sufficient reason for interference; and whether interference is justified by the principles which ought to govern parliament.

Sir Robert Peel doubts the policy of investing so largely in railways—especially for the system itself. He proposed therefore that "a select committee should be appointed to consider what course shall be taken with the schemes proposed to be submitted to parliament the present session." The motion was carried and the committee appointed, consisting of the following named gentlemen, viz:—

The question having been put and carried, Mr. J. Collett inquired, whether the committee was to be an open or secret one—whether it would be competent for honorable members to attend without taking part in the committee's deliberations?

Sir R. Peel said that the committee would be a select and secret one.

The following gentlemen were then appointed the committee:—Lord G. Somerset, Sir G. Grey, Mr. Strutt, Mr. Labouchere, Mr. Estcourt, Mr. Greene, Mr. Ewart, Mr. Colquhoun, Mr. Hodgson, Hinde,

Mr. Pakington, Sir G. Clerk, Mr. F. Baring, the O'Connor Don, Lord H. Vane, and Mr. Shaw.

#### Iron Trade.

We learn, both from our private correspondence, and from the London Mining and other Journals, that the iron trade is in an exceedingly flourishing condition. It is stated that there is not a single iron works of any description in South Staffordshire which is not in operation, or, if not fully employed, it is for lack of raw materials, rather than of orders. The demand for ships, buildings, railways, and other purposes, has increased so rapidly, that there must be a large investment of capital, and extension of works to meet even the home demand, to say nothing of exportation: while, at the same time, the French minister of marine has recommended the repeal of duty on iron, both wrought and pig, shipped to the dock yards in France, for ship building, as they cannot supply it in quantities to enable them to compete in that line of ship building with the English.

We copy an article from the Mining Journal, of 31st January, in relation to the increase of iron ship building—and also a variety of extracts from various English and Scotch papers, showing the condition and variations of the trade during the month of January. Such is the present and prospective demand in Europe, that even a repeal of the present duty on iron imported into this country, would not materially affect the prices here.

We take the following quotations from the Mining Journal, of January 10th, from which it will be seen that prices were up—but during the month there were considerable fluctuations in prices, as speculators or holders became pressed, owing to the political aspect of things—as will be seen from the extracts from various papers, in the Mining Journal of 17th and 24th: but the quotations of the 31st show that prices were fully sustained after the meeting of parliament, which took place on the 23d. There had been much doubt and apprehension as to the course which the government would pursue in relation to the numerous applications for railways. There can be little doubt, however, but that there will be at least three thousand miles and over, chartered out of the *twenty thousand* and upwards applied for. If so, the price of rails will not fall under 122. per ton on the average.

London, January 9th, 1845.

Iron—bar, Wales, ton.....	£0	Os.	—£9	Os.	0d.
" London.....	9	15	—	10	0 0
Nail rods do.....	0	0	—	10	10 0
Hoop [Staf.] do.....	0	0	—	11	10 0
Sheet do. do.....	0	0	—	12	10 0
Bars do. do.....	0	0	—	11	0 0
Welsh cold blast foundry pig.....	4	0	—	5	10 0
Scotch pig Clyde.....	4	0	—	4	5 0
Rails.....	0	0	—	12	0 0
Russian CCND.....	0	0	—	15	10 0
" PSI.....	0	0	—	16	0 0
" Gourieff.....	0	0	—	14	10 0
" Archangle... ..	0	0	—	13	12 6
Swedish, on the spot... ..	11	10	—	11	15 0
" steel, faght... ..	0	0	—	15	15 0
" " kegs. " " " "	0	0	—	15	0 0

Welsh and Staffordshire remain firm at quotations. At the meeting of the Staffordshire masters, held at Birmingham, yesterday, prices were confirmed, and an indisposition evinced by the principal ones to make further sales at existing rates. Scotch pig not quite so buoyant as last week—buyers at 80s., but no sellers under 85s.

The demand for English iron has considerably improved, and higher rates are confidently expected for all descriptions. Scotch pig iron has been sold at 85s. cash during the last ten days; but the market is rather easier, and, with speculators, 82s. 6d. may now be considered a very fair quotation, while



the makers are asking 85s. to 90s. Staffordshire pig iron exceedingly firm, at an advance of 10s. per ton. Rails—large contracts have been entered into, and it is reported, at prices varying from £12 10s. to £13 per ton.

JAN. 6.—The rise in price which we have noted these few days has been sustained. A considerable business was done yesterday—say 3000 to 4000 tons—at 83s. to 82s. 6d.; to-day 1000 tons were sold at 83s., and the market closed with several sellers at 83s. 6d. We quote the price at 80s. to 82s. 6d. cash. Several of the makers are open for contracts or sale, for immediate delivery, at 85s.; but we believe 83s. 6d., prompt cash, would buy from makers 8,000 to 10,000 tons.—*Glasgow National.*

JAN. 17.—Welsh and Staffordshire continue in steady demand, and makers are firm in price. Scotch pigs are dull.

We have very little to notice in the iron market this week; the demand continues good, and prices steady. Scotch pigs can be had at 80s. In other metals no alteration.

*Wolverhampton, Jan. 16.* [From a correspondent.]—Prices here are improving, pigs have advanced to £5 10s. per ton—being 10s. above that quoted at the late meeting held at Birmingham. Bars and rods, £10; hoops, 10l. 10s. to 11l.; sheets, £11 10s. to £12.

*Glasgow, Jan. 13.*—The late advance on this article seems, for the present, to have attained its height. These two or three days past large transactions have taken place at 85s. at four months. To-day the above was not obtained; we heard of several parcels offering at 83s., and another parcel of 1000 tons at 80s., which we are not aware met purchasers; we quote the price at 80s., and dull market.—*National.*

*Gottenburg, Jan. 1.*—Iron being at present a very favorable article here, in consequence of the great demand for Great Britain, considerable speculation within these few days has taken place, and large parcels have been brought up, and the price risen at the exchange, for direct paper on London, at 90 days, making ordinary sizes to stand at £10 14s. 6d.; extra dimensions higher in proportion. The season being now so far advanced, one does not know how the price may rule in spring. Bar iron is a very favorite article here, and rising in price.

*January 23.*—Welsh and Staffordshire, firm at quotations, but not much business doing. Scotch pigs sold, since our remarks in last week's Mining Journal, at 75s., 76s., 77s. 6d., 78s. 9d., and yesterday at 80s., net cash; more inquiry for exportation. In Swedish some large sales, within the past week, at 11l. to 11l. 10s., according to specification.

English bar and rail iron continue firm; about 35,000 tons of the latter have been contracted for since Friday last, at a price equivalent to 13l. 5s. per ton. Welsh pig is in fair demand at quotations. In Scotch pig iron transactions have been done at 80s. in Glasgow.

*Liverpool, Jan. 21.* [From a correspondent.]—The market for pig iron has improved to-day; there are now many buyers at 80s. cash, with few sellers.—Once the difficulty respecting the railway deposits is got over, trade generally will improve.

*Glasgow Pig Iron Trade, Jan. 16.*—On Wednesday the price was quoted at 80s.; at this figure little has been done. To-day a parcel of 1500 tons was offered at 75s. which was in the course of the day sold at 75s. and 78s.; we quote the price at 78s., prompt cash.—*National Adv.*

JAN. 17.—The market has been quiet this week, and the quotation by the dealers was nominally 80s. to 85s., according to terms of statement. Yesterday 1500 tons was forced on the market for immediate cash, and sold at 75s. cash, payable this day; but this sale was made under peculiar circumstances, and we do not alter the above quotations of 80s. cash, and 82s. 6d. to 85s. bill, which would require to be paid, were buyers to come into the market. The makers are still quoting 85s. to 90s., and none of them are anxious to sell.—*Glasgow Herald.*

JAN. 17.—Common bars 10l.; railway bars 11l. 10s.; and railway chairs 6l. 5s. per ton.

*Note of pig iron shipped from the Clyde in 1845.*

*Exports—coastwise. Exports—foreign.*  
Total tons..... 89,874 Total tons..... 21,918  
Shipped in all, 1845, from Clyde..... 111,792  
Additional from Grangemouth..... 37,000

Total tons..... 148,792

All branches of the iron manufactures of South Staffordshire, says the Birmingham Journal of 23d ult., continue in undiminished activity, and it is expected that a further impetus will be given to the trade before the expiration of the present quarter. During the past week, contracts for 120,000 tons of iron rails for the Great Western company have been taken, a large proportion of which has been contracted for in our own district. This immense order—which, it must be borne in mind, is only a small portion of those that may be looked for from the railways which are all but certain to pass in the present session—is required for the Great Western main trunk, and its numerous branches, including the Oxford, Worcester, and Wolverhampton line, the operations of which have already commenced at various points. Of these 120,000 tons, 45,000 are taken by the Coal Brook Dale company; 40,000 by the Plymouth works, Glamorganshire; 20,000 by Messrs. Malins & Rawlins, of West Bromwich; and 15,000 tons by the Chillington iron company; we understand that these contracts have been regulated subject to the fluctuations of trade, but at present prices they will realize more than 13l. per ton. Taking, therefore, into account the large supplies which will be required to meet the demand for British railways, and the orders which may be looked for from the continent, to complete the great lines under contract, we may, without indulging in any very sanguine speculations, safely conclude that the present price of iron will, under any circumstances, be fully maintained. *There is not, we are informed, at this moment, a single iron work, of any description, in South Staffordshire, which is not in constant operation, or if not fully employed, the circumstance is attributable to the want of the raw materials of manufacture, coal and iron-stone.*

London, January 30.			
Iron—bar, Wales, ton.....	£0 0s.—£9 0s. 0d.		
" London.....	9 15 — 10 0 0		
Nail rods, do.....	10 10 — 10 15 0		
Hoop [Staf.] do.....	11 10 — 12 0 0		
Sheet, do. do.....	0 0 — 13 0 0		
Bars, do. do.....	0 0 — 11 0 0		
Welsh cold blast foundry pig.....	0 0 — 5 10 0		
Scotch pig, Clyde.....	0 0 — 4 0 0		
Rails.....	0 0 — 12 0 0		
Russian, CCND.....	0 0 — 15 0 0		
" PSI.....	0 0 — 16 0 0		
" Gourieff.....	0 0 — 14 0 0		
" Archangle.....	0 0 — 13 12 6		
Swedish, on the spot.....	11 10 — 12 0 0		
" steel, faght.....	0 0 — 16 10 0		
" kegs.....	15 0 — 15 5 0		

We have nothing whatever of interest to notice in the metal market this week. The expected decline of 3s. per ton in English tin is now effected; with this exception, there is no change since last week's Journal, and very little business has been done.

English iron continues firm at last week's prices. Very few transactions have taken place in Scotch pig iron; the price may now be quoted at 77s. 6d., cash, and 82s. 6d. for time. Welsh and Staffordshire pig iron steady, but the demand very limited at present. Foreign iron has been in considerable request and higher rates paid. Foreign steel dull.

*Glasgow, Jan. 24.*—The business in this article during the week has been entirely confined to a few parcels, the prompts of which have not been met by purchasers, being forced off for cash, and the prices obtained varied from 77s. 6d. to 80s. To-day, the political news being thought favorable for holders, the dealers obtained freely 82s. 6d. cash, and a large contract was made by a maker at 85s. It is difficult, in the present political uncertainty, to give a quotation, but the general feeling is in favor of an advance on the above.—*Constitutional.*

*Glasgow Pig Iron Trade, Jan. 27.*—Notwithstanding the severe pressure on the money market, this article has assumed a very firm appearance. Peel's measures will, without doubt, cause other nations to reciprocate in their tariffs, and consequently we have now opened up an export trade, thus completely removing the difficulty as to stocks. For iron masters, as well as other manufacturers, their prospects have never had so bright an appearance. For money, one or two small lots, under 100 tons, was sold at 80s., but yesterday and Saturday contracts were

made to a limited extent by makers at 85s. cash; and we learn to-day as much as 87s. 6d., say 87s. 6d., four months, was paid; we quote the price for to-day, as 82s. 6d., cash.—*Glasgow National.*

JAN. 28.—Scotch pig iron is maintained firm at 80s., cash, and the demand for shipment and consumption is more felt than since the close of last season. Bars are also brisk at 10l.—less four per cent. for cash.

#### The Railroad Meeting.

The following are the resolutions passed at the great railroad meeting held in the old court house on Wednesday evening: they are well drawn up, and some of them really eloquent.

*Resolved,* That the trade, agriculture and manufacturing operations of western Pennsylvania are so intimately combined with the resources of Pittsburg that whatever affects her prosperity must have an influence, either beneficial or detrimental, on that of the western counties of the state.

That while the skill of her manufacturers and the enterprise of her citizens generally, have for a series of years been adding to the wealth and stimulating the exertions of an immense region of country, her people have been suffering the direst calamities—have been deprived, by conflagration, of millions of capital, and have been crippled in their commercial operations by combinations formed for the purpose of transferring her trade to localities with which she will soon be unable to compete, unless assisted by legislative action effectual to the preservation of her interests.

That that action has been recently invoked by applications for granting the right of way to the Baltimore and Ohio railroad company, a subject so deeply important to the citizens of Pittsburg that all other objects of legislation, so far as they are concerned, appear comparatively trifling.

That a denial of the right of way to that company, upon terms equally equitable and liberal, would be effectual in compelling them to make a communication with the Ohio at a point so far below Pittsburgh as would destroy the whole of the transit trade so long and prosperously carried on through the Pennsylvania thoroughfares, and must deprive her of the visits of thousands of western merchants who have hitherto taken the Pittsburg route as the most eligible and convenient in their resort to the eastern states.

That such denial of right will not only cut off forever the inexhaustible resources derived from the trade of the western rivers, by driving that trade through a southern region to Baltimore, but will be equally detrimental to our trade with the lakes; as the enterprise of our commercial rivals below us, will induce them to open facilities for the lake trade in combination with the western terminus of the Baltimore and Ohio railroad.

*Resolved,* That while the attacks upon the tariff, which we are but too much warranted in believing will be successful, threaten greatly to diminish the resources derived from our manufactures, we cannot view without the most serious alarm, the dangers which impend over our transit trade and our commercial prosperity, should the Baltimore and Ohio railroad company be compelled through



illiberal legislation, to terminate the improvement at any other point than Pittsburg.

*Resolved*, That the completion of the railroad route to the Atlantic seaboard, will, in the opinion of this meeting, add greatly to the carrying trade in heavy burthen, upon the Pennsylvania canal, an opinion founded upon the superior capabilities of canals for such kind of transportation.

*Resolved*, That in the original act giving to the Baltimore and Ohio railroad company the right of way, without restrictions that would be detrimental to their interests, we conceive the commonwealth to have pledged its faith to a liberal course of proceeding towards that company, should its finances at any time permit it to locate the road within the jurisdiction of Pennsylvania.

*Resolved*, That we duly appreciate the advantages to be derived to the state from the construction of the Erie and Sunbury railroad, and would earnestly urge on the legislature the granting such privileges to the company as may insure the successful completion of that great work.

*Resolved*, That this meeting cheerfully concur in the expediency of granting to the citizens of Philadelphia (in whose prosperity we are deeply interested) the privilege for the construction of a railroad from that metropolis to Pittsburg by the middle route, and that while we go with them heart and hand in this new and all important improvement, we cannot for a moment suppose that the enlightened citizens of our commercial metropolis will hesitate to aid us in carrying through a project of so much advantage to us as the grant of the right of way to the Baltimore and Ohio railroad company.

*Resolved*, That we deplore the spirit of opposition to this great measure which has been manifested in a particular quarter of the state, but our regret is mingled with no unkind or malevolent feeling. A difference of opinion, about opening a road through any part of the family estate, can never make us forget, as Pennsylvanians, the thousand ties of interest and affection that bind us indissolubly together. We are identified with the great works of internal improvement, that now traverse the commonwealth. The debt incurred by their construction is a sacred lien on the property, and the industry of every one amongst us. We can hope to alleviate the burden only, by their increased productiveness. We firmly believe that the projected work, will tend to swell the prosperity of these great channels of communication, while a contrary policy must speedily exhibit them in solitary exhaustion and decay.

*Resolved*, That the south-western counties of the state, having expended large sums in the construction of turnpikes, and have with exemplary patience, paid with great promptness onerous taxes imposed upon them for the purpose of discharging interest on debts created in the prosecution of works that have deprived them of the benefits of all these expenditures, are entitled to having the right of way granted through that portion of the state as a matter of mere remunerative justice to the inhabitants.

*Resolved*, That the proceedings be signed by the officers, and that they be published in all our papers, and that a copy be forwarded to the speakers of both houses.

On motion of Wm. Larimer, Jr.

*Resolved*, That the legislature of Pennsylvania be, and they are hereby requested to incorporate a company to make a railroad from the termination of the Cumberland valley railroad at Chambersburg, to intersect the Baltimore and Ohio railroad at such a point on the same, within this state as may be found most advantageous to the commonwealth and our eastern commercial metropolis, Philadelphia.

John Gebhart, president; Wm. Larimer, Jr., and George Breed, vice-presidents; H. S. Magraw, and John Mecaskey, secretaries.

After the adoption of the foregoing resolutions, a committee from the councils appeared and presented the following preamble and resolutions, unanimously passed in both councils. They were read to the meeting, and unanimously approved.

*Whereas*, The advantages derived from the construction of railroads by affording a cheap and speedy means of transporting passengers and valuable freight; by disbursing large sums of money in the district through which they pass; and by facilitating that intercourse between the remote sections of our wide extended Union, which must ever rank among the most efficient means of cementing that Union together, are to well known to require proof, or admit of debate, and are independent of any benefits resulting to the stockholders thereof; *And, whereas*, A bill is now before the legislature of this state providing for the construction of a central railroad from this city to Harrisburg, intended to complete the railroad communication between the Ohio and the Delaware; *And, whereas*, A bill is also before the legislature of this state granting the right of way through the state to the Baltimore and Ohio railroad company, upon such terms as will prove advantageous to the commonwealth, and especially so to those sections which have derived no advantages from the construction of the public works, although they have borne their proportion of the burdens thence arising; *And, whereas*, Great apprehensions are entertained that unless the said bill be passed at the present session of the legislature, the state of Virginia will offer such inducements to said company as will divert the road entirely from our state; and by forming a connection with the Ohio river below the western boundary of Pennsylvania, will intercept the travel and trade which would otherwise pass along our public works, and aid in defraying the expenses of their construction and management.

*Therefore, be it resolved by the citizens of Pittsburg, in select and common councils assembled*, That the legislature of this commonwealth be respectfully, yet earnestly, requested to pass the bill now before the senate, granting to the Baltimore and Ohio railroad company the right of way from the state line near Cumberland, to the Ohio river at Pittsburg.

*Resolved*, That the legislature be also re-

quested to incorporate a company to construct a railroad from Harrisburg to Pittsburg, upon such terms as may be consistent with the preservation of the state improvements, and may promote the general welfare of the citizens of Pennsylvania.

*Resolved*, That copies of the foregoing preamble and resolutions be signed by the presidents of the councils, and the mayor, and transmitted to the speakers of the senate and assembly, with a request to lay the same before their respective houses.

*Letter against Granting the Right of Way to the Baltimore and Ohio Railroad Company, through Pennsylvania to the Ohio River, at Pittsburg.*—Philadelphia, January 30, 1846.

GENTLEMEN: We have observed with pain the use which has been made of our names to promote the views of the Baltimore and Ohio railroad company, in their pending application to the legislature of this commonwealth for the right of way through Pennsylvania to Pittsburg. We deem the occasion of sufficient importance to address this letter to you as the representatives of this city and county, in order, by putting you in possession of the grounds on which we acted, at a particular juncture, to prevent any misapprehension of our motives or opinions. When about a year ago, we were induced to sign a paper recommending the revival of the act of 1828, in favor of that enterprise, we did so from positive assurances that Virginia was about to grant to the company a right of passage through her territory to Parkersburg.

In these assurances we were misled, as subsequent events proved. The legislature of Virginia, then in session, not only denied the solicited boon, but withdrew its subscription of a million of dollars formerly granted to aid the road in its way to Wheeling. A similar application, within a few weeks, was not only unsuccessful, but a bill has actually passed the lower house of the Virginia legislature, at its present session, for the construction of a railway from Richmond, in Virginia, to the Ohio river. The sentiments of Virginia in these measures may be considered as fairly expressed, and the door to further negotiation on that subject as finally closed.

After these unequivocal manifestations of feeling, we need entertain no fear that the Baltimore and Ohio railroad will ever reach a point below Pittsburg, with the approbation or assistance of Virginia. This danger being removed, we do not hesitate to say, that we are entirely opposed to the admission of this railway within the confines of Pennsylvania. We never regarded its admission as a thing desirable in itself, but acquiescing in the supposed necessity of preventing any connection with the Ohio, at Parkersburg, we concurred with our western friends in desiring the selection of Pittsburg as its western terminus.

But another and independent objection is urged against the admission of this road at all. We have no security, it is suggested, that Pittsburg would permanently prove its



western terminus. What, it has been asked, would prevent its future extension along the level margin of the Ohio, to a point below the obstructions in the navigation of that river? Such an extension of the road would it must be confessed, as effectually frustrate the policy of a Pennsylvania grant, by the interception of the Pittsburg trade, and its diversions from our local improvements, as an original termination at Parkersburg.

But the danger of an original terminus at that point, by the permission of Virginia, being wholly at end, what plausible reason can justify Pennsylvania in the grant of a boon, which, in the absence of plain advantages, or useless for the prevention of a greater evil, must be characterized as an act of sheer liberality, if not a romantic sacrifice of interest and duty? Our friends of Pittsburg, indeed, appealing to the selfish principles of our nature, insist that Philadelphia would be greatly benefited by a connection of Baltimore with Pittsburg. Now, suppose this to be true; the question may be seriously asked, if any possible advantage, exclusively for the eastern and western extremities of the state, is entitled to favorable regard, against the manifest and irretrievable injury which would ensue to the long line of intervening improvements, from one end of Pennsylvania to the other?

We view the accident of local superiority as an element of wealth, and as legitimately the subject of price and value, as the article of coal or wheat, or any other material commodity. Baltimore is shut out by the natural situation of her territory, from any approach to the Ohio, except by the voluntary act of one or other of the contiguous states. She is still further removed from the vast trade of the lakes, and yet she aspires, without the offer of an appreciable equivalent, to participate in its advantages. She knows that Pittsburg naturally concentrates the trade of the Ohio, by standing at its head; and that she is destined to command a portion of the *lake trade*, by a connection with Erie. Now, by what right, either founded in nature or resulting from good neighborhood or political ties, is Baltimore entitled to participate in benefits which nature has denied to her, without some return graduated by their present value and prospective magnitude? While the cities of New York and Boston are struggling for a connection with the lakes, and are expending millions of dollars to secure a portion of the vast trade of these inland seas, by the construction of long lines of railway, is it reasonable that Pennsylvania should diminish or part with that share which she may appropriate, to a corporation, which is chartered to subserve the interests of another state? Is it reasonable that Maryland, presenting herself as a rival to Pennsylvania, should expect from her the exercise of such exalted munificence? Is it right that Pennsylvania, while sustaining a debt of nearly forty millions of dollars, should relinquish, even to a sister state, any portion of those benefits which that debt was contracted to secure?

While Philadelphia is ever ready to avert danger and remove calamity from her friends

of Pittsburg; while she would protect them, even at great sacrifices, from the designs of an ambitious rival; while she desires to promote a close connection of that important and rising city with the Atlantic coast; she ought not to overlook her higher duties to the commonwealth, nor that these are paramount to all local considerations whatever. We are anxious that the distinctive and peculiar interests of Pittsburg should be cherished and sustained by kind and benignant legislation. And with an eye to these and the state at large, we think that all would be best promoted and secured by a continuous railway from Harrisburg to the west. It is for such a road, *through our own territory*, in the place of one from another state, that we ask the sympathy, and desire the hearty and unremitting exertions of our representatives. We think that it is the duty of Pennsylvania to turn aside, like Virginia, from the solicitations of the Baltimore and Ohio railroad and taking counsel, like her, from her own interests and necessities, adopt instant measures to unite by a railway, her metropolis with the western waters.

The advantages to the commonwealth of a continuous railway, running nearly parallel with the canal which traverses the state, are too apparent to require exposition. The business on the Columbia road, forming more than one-fourth of the entire chain, would unavoidably be increased at least ten-fold throughout the year. But the benefits of two concurrent means of transportation, cannot easily be estimated. One will be open at all seasons, and the other also during the busiest portion of the year; one is suited to the carriage of finer, and the other to coarser kinds of merchandize; one to passengers, and the other to more bulky articles of commerce; while presenting together, except during the winter season, a choice of accommodation by land or water, and in the event of accident to one, a certainty of transit by means of the other. In the calculations of business, and as a means of securing and increasing trade, the value of a promise to carry passengers and merchandize, under all reasonable circumstances, and in the face of untoward and even extraordinary emergencies, cannot well be overrated. A promise so important to the business world, *could be made and kept* in Pennsylvania, with a railroad and canal running side by side, and terminating at the same points.

But, gentlemen, we cannot forget that the local interests of Philadelphia, bound up as they essentially are, with the prosperity of our beloved commonwealth, imperatively require the construction of a railway to connect the Delaware with the Ohio. Our northern and southern neighbors have been long contending with praiseworthy activity, for the possession of that great prize, the western and lake trade, nearly all of which so far as it reached the Atlantic, was once concentrated in Philadelphia. In this contest Pennsylvania has not been conspicuous. Her improvements, though greater in amount than any other state of the Union, were chiefly intended to develop her own priceless re-

sources. She has scarcely looked beyond her own borders; she has never coveted the possessions of others; she has never fed a prurient ambition, by soliciting a territorial franchise from any of her sisters.

The railway here recommended, is the first great improvement of that nature, by means of which Pennsylvania has attempted to extend her western trade. It is almost the only aid which the bountiful and unsurpassed advantages of her natural position require. If a bill be passed with such provisions as will induce the requisite amount of subscriptions for the speedy completion of the work, the fortunes of Pennsylvania would soon be secure, and Philadelphia, now fallen behind New York in population, might soon anticipate a census which would proclaim the return of her ancient ascendancy, as the metropolis of the Union, and the mistress of American cities. With the aid of this road, the finances of Pennsylvania would be placed on a firm and prosperous basis. Without it the doom of Philadelphia is sealed, and our honored commonwealth, sympathizing in her decline, will be condemned to the prospect of a decayed credit, and an avowed bankruptcy; or to eking out her annual payments by unceasing drains upon the pockets of her people; thus blasting the fruits of industry, and driving capital and enterprise from her borders. We are, gentlemen, Your friends, etc.,

Thos. P. Cope, Robt. Toland, Thos. P. Hoopes, J. R. Tyson, T. C. Rockhill, Jno. Grigg, Grigg and Elliot, Bancroft and Co., Myers, Claghorn and Co., A. & G. Ralston, & Co., Wm. R. Thompson, Richards & Bisham, Farnum, Newhall & Co., Chas. W. Churchman, Martin & Smith, Fales, Lothrop & Co., Hacker, Lea & Co., J. McLanahan & Co.

To W. G. Crabb, C. Gibbons, C. B. Treg, Thos. G. Connor, B. Matthias, Thomas C. Steel, W. W. Haley, H. L. Benner, John Foulkrod, O. P. Cornman, T. H. Forsyth, T. Daly, D. Bird, F. W. Weest, T. S. Fernos, John Kline, Jos. Eneu & John Ruper, esquires, representatives in the legislature of Pennsylvania, from the city and county of Philadelphia.

Philadelphia, January 30, 1846.

#### Great Western Railroad,

From London to Bristol.—The "Great Western railway" proper, is 118 miles in length from London to Bristol, and cost £6,678,125, or 56,594*l.* per mile. The following concise account of its origin is the introduction to a "travelling chart, or iron road book" of the road, upon which is laid down every bridge, whether over or under, road crossings on a level, tunnel, or stream between Paddington and Bristol. It also gives the figures of the principal items of its cost with the last twelve semi-annual statements of receipts, they showing the regular and astonishing increase of its traffic from 65,885*l.*, for the six months from June to December 1839 to 440,046*l.* for the corresponding period of 1844.

This chart is published in the London Chronicle and is beautifully illustrated with cuts representing, and descriptions of, the various places of note and interest along the line, but for want of the engravings we are only able to give the introduction.



With the experience of only the Liverpool and Manchester railway before him, Mr. I. K. Brunel, who inherits the genius and enterprising skill of his father, the engineer of the Thames tunnel, made the bold experiment of constructing the Great Western railway upon principles quite novel to general railway practice. Cost being a secondary consideration, he resolved that this railway should surpass all others in its better gradients; curves of larger radius; broader gauge, the rails being seven feet part instead of four feet eight inches and a half, the common gauge of nearly all the other British lines—engines of greater power, and wheels of larger diameter. It is unnecessary, for the present purpose, to discuss any of these various novelties, which already have been fully considered in the "New Sketches of Old Railways," a series of papers, published in the *Railway Chronicle* of 1844, pp. 147 to 245. The practical result of the Great Western system, which the public at large recognizes, is, that passenger trains travel with safety daily 50 miles an hour on its line.

The act of parliament for the construction of the Great Western was first applied for in 1834, but not obtained until 1835. As in other railways, the expenditure was soon found to exceed the estimate—by two millions and a half; and in 1839 a new act was obtained, empowering the company to raise an additional capital. The sums authorized to be raised, including loans, have now reached 8,160,000. An act was procured in 1837 for an alteration in the line and the terminus at Paddington, the first intention being to use the same terminus as the London and Birmingham.

On the 4th of June, 1838, the line was opened to Maidenhead; on the 1st of July, 1839, to Twyford; in 1840, to Reading; and on the 30th of June, 1841, the whole line was opened between London and Bristol.

The Oxford branch, opened on the 12th of June, 1844, belongs to the Great Western, but it is only the lessee, at a rental of 17,000. a year, of the branch line from Swindon to Gloucester, opened throughout on the 12th of May, 1845; and of the Bristol and Exeter, opened throughout on the 1st of May, 1844.

The progress of the traffic is shown by the following half-yearly summaries, which include the receipts of the branch lines:—

Six months ending—	Receipts.
December 31, 1839.....	£65,885
June 30, 1840.....	89,937
December 31, 1840.....	153,912
June 30, 1841.....	187,780
December 31, 1841.....	337,352
June 30, 1842.....	310,871
December 31, 1842.....	359,376
June 30, 1843.....	330,847
December 31, 1843.....	377,797
June 30, 1844.....	369,904
December 31, 1844.....	440,046
June 30, 1845.....	433,296

The works appear comparatively light as far as Box tunnel, 101 miles from Paddington. The length of this tunnel is 3,168 yards. Hence all the way to Bristol the works present various kinds of engineering difficulties and interest. In the last seven-

teen miles before reaching Bristol, there are five short tunnels besides the Box tunnel. The cuttings are lighter than is generally the case, being about 10,000,000 cubic yards, or an average of 80,000 per mile; whilst those on the South-Western average 200,000 per mile; on the London and Birmingham, 110,000; on the Liverpool and Manchester, 100,000.

The distances are marked on the north side of the line.

The precise gradients of the whole line are given at each point on the chart, from the official sections. It will be observed that, as far as Didcot, 51 miles from Paddington, the line is almost on a *dead level*, rising generally less than 4 feet per mile, or 1 in 1320. From this point to Swindon, the highest point on the line, is a rise of 147 feet, making Swindon in all 263 feet above Paddington and 275 feet above Bristol.

The cost of the Great Western, from Paddington to Bristol, has been as follows:—

Works, surveying permanent way....	£5,054,180
Carriages and engines.....	578,331
Land.....	790,218
Law.....	99,091
Other expenses.....	156,305

Total..... £6,678,125  
being an expense per mile of 56,594/.

**NOTICE TO CONTRACTORS. PRO-**  
posals will be received at Bridgeport, until the 20th of March next, for re-laying the Housatonic railroad with an H rail.

Specifications will be furnished at the office of the undersigned, in Bridgeport, on and after the 20th February.  
R. B. MASON, Engineer.

Bridgeport, February 14, 1846. 8 5t

**LAWRENCE'S ROSENDALE HYDRA-**  
ulic Cement. This cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Floors and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight papered barrels, by  
JOHN W. LAWRENCE,  
142 Front street, New York.

Orders for the above will be received and promptly attended to at this office. 32 1y

### KITE'S PATENT SAFETY BEAM.

**MESSRS. EDITORS.**—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan he same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 28, 1840.

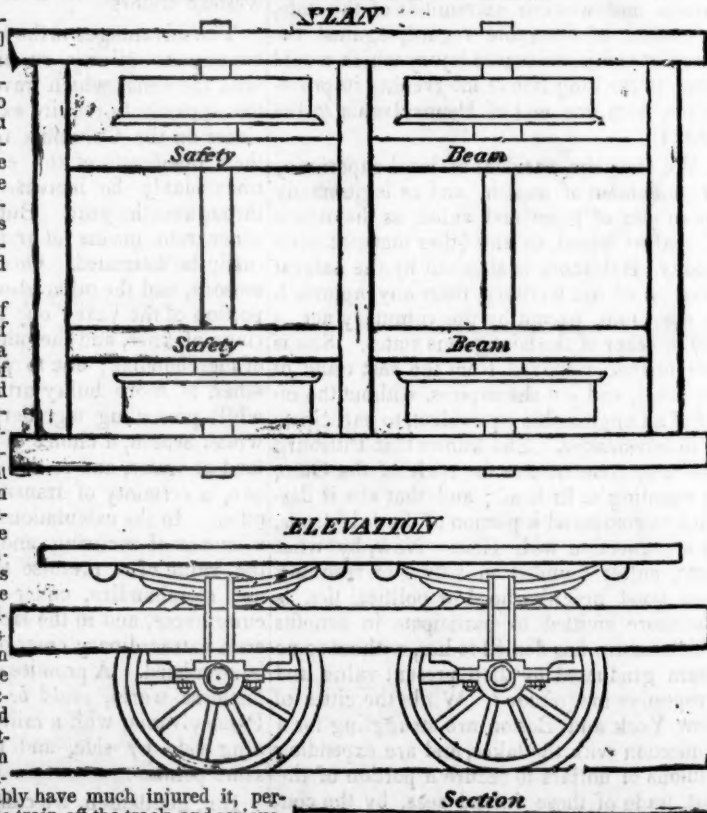
The undersigned takes pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
GEORGE CRAIG, Superintendent,

JAMES ELLIOTT, Sup. Motive Power,  
W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York. ja45





**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. **JOHN F. WINSLOW, Agent.**

Albany Iron and Nail Works, Troy, N. Y.  
The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co. Boston. ja45

**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

**HENRY BURDEN, Agent.**

Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\*\*\* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

## FRENCH AND BAIRD'S PATENT SPARK ARRESTER.

**TO THOSE INTERESTED IN** Railroads, Railroad Directors and Managers are respectfully invited to examine an improved **SPARK ARRESTER**, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms. **FRENCH & BAIRD.**  
Philadelphia, Pa., April 6, 1844.

\*\*\* The letters in the figures refer to the article given in the Journal of June, 1844. ja45

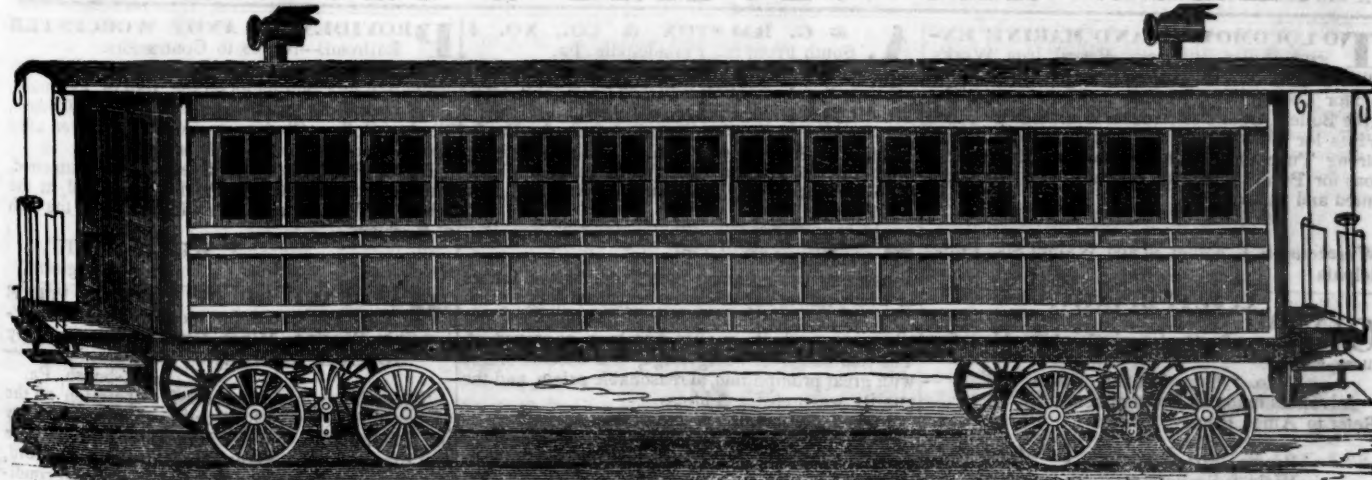


**BENTLEY'S PATENT TUBULAR STEAM BOILER.** The above named Boiler is similar in principle to the Locomotive boilers in use on our Railroads. This particular method was invented by Charles W. Bentley, of Baltimore, Md., who has obtained a patent for the same from the Patent Office of the United States, under date of September 1st, 1843—and they are now already in successful operation in several of our larger Hotels and Public Institutions, Colleges, Alms Houses, Hospitals and Prisons, for cooking, washing, etc.; for Bath houses, Hatters, Silk, Cotton and Woollen Dyers, Morocco dressers, Soap boilers, Tallow chandlers, Pork butchers, Glue makers, Sugar refiners, Farmers, Distillers, Cotton and Woollen mills, Warming Buildings, and for Propelling Power, etc., etc.; and thus far have given the most entire satisfaction, may be had of D. K. MINOR, 23 Chambers st. New York.

The article is complete in itself, occupies but little space, is perfectly portable, and requires no brick work, not even to stand upon. It is valuable not only in the saving of time and labor, but in the economy of fuel, as it has been ascertained by accurate measurement, that the saving in that article is fully two-thirds over other methods heretofore in use. They are now for the first time introduced into New York and Boston by the subscriber, who has the exclusive right for the New England states, New York and New Jersey, and are manufactured by

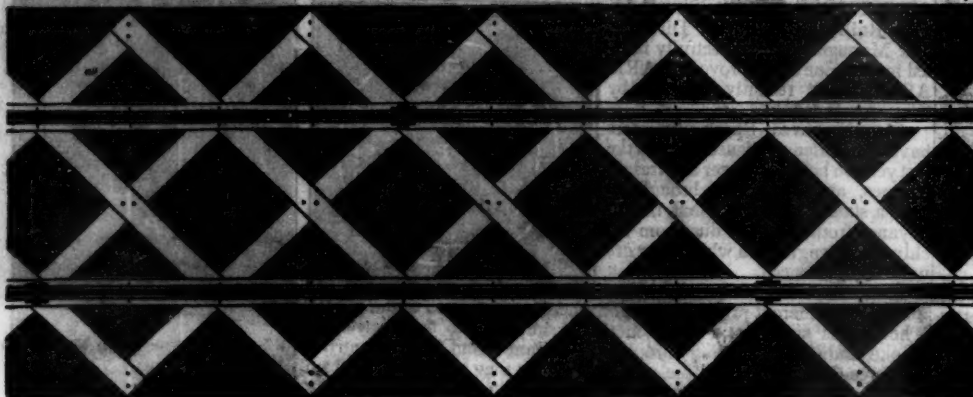
**CURTIS & RANDALL, Boston; and by  
FORCE, GREEN & CO. New York.**

## DAVENPORT & BRIDGES' CAR WORKS.



**DAVENPORT & BRIDGES CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEPORT, MASS.** Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern, and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All order punctually executed and forwarded to any part of the country. Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.

## HERRON'S PATENT AMERICAN RAILWAY TRACK,



As seen stripped of the top ballasting

**HERRON'S IMPROVEMENTS IN RAILWAY SUPERSTRUCTURE** effect a large aggregate saving in the working expenses, and maintenance of railways, compared with the best tracks in use. This saving is effected—1st, Directly by the amount of the increased load that will be hauled by a locomotive, owing to the superior evenness of surface, of line and of joint. This gain alone may amount to 20 per cent. on the usual load of an engine.—2d, In consequence of the thorough combination, bracing, and large bearing surface of this track, it will be maintained in a better condition than any other track in use, at about one-third the expense.—3d, As action and reaction are equal, a corresponding saving of about two-thirds will be effected in the wear and tear of the engines and cars, by the even surface and elastic structure of the track.—4th, The great security to life, and less liability to accident or damage, should the engine or cars be thrown off the rails.—5th, The absence of jar and vibration, that shake down retaining walls, embankments and bridges.—6th, The great advantage of the high speed that may be safely attained, with ease of motion, reduction of noise, and consequently increased comfort to the traveller.—7th, The permanent and perfect character of the Way, insuring regularity of transit. To which may be added the great increase of travel, that would be induced by the foregoing qualities to augment the revenue of the railroad.

The cost of the Patent track will depend on the quantity and cost of iron and other materials; but it will not exceed, even including the preservation of the timber, the average cost of the tracks on our principal railroads. Generally, the timber structure, fastenings and workmanship, exclusive of the cost of the iron rails, will be from \$2,300 to \$4,000 per mile. On this structure, rails of from 40 to 50 lbs. per yard, will be equal in effect to

60 and 70 lbs. rails laid in the usual way. The proprietors of a road, furnishing approved materials in the first instance, the undersigned will construct the track on his plan in the most perfect manner, with recent improvements, for one thousand dollars per mile. And he will farther contract to maintain said track for the period of ten years, furnishing such preserved timber and iron fastenings as may be required, and keeping said track in perfect adjustment, under any trade not exceeding 100,000 tons per annum, or its equivalent in passenger transportation, for Two hundred dollars per mile per annum.\* To insure the faithful performance of this contract, he will pledge one-fourth of the cost of construction, with the accruing interest thereon, regularly vested, until the completion of the contract. So that a company, by securing payment to the undersigned at the specified period, will have only \$750 per mile to pay for the workmanship on the track, without any charge being made for the use of the patent, the subsequent payments, for maintenance of way, and amount withheld, being made from the large margin of profits that will result from its use.

JAMES HERRON.  
Civil Engineer and Patentee.

No. 277 South Tenth St., Philadelphia.

\* A general average of the repairs done on six of the most successful railroads in this country, for a period of from six to eight years' use has been found to exceed \$625 per mile per annum, exclusive of renewal of rails. But few roads in this country carry as much as 100,000 tons per annum. When a road exceeds that quantity, the repairs due to the additional tonnage, up to 200,000 tons, will be charged at one mill per ton; over the latter, and not exceeding 300,000 tons, nine-tenths of a mill, etc. Where there are two tracks to maintain, a large reduction upon those rates will be made. 1y1

**W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make survey estimates** of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description. He will also act as agent for the sale of machinery, and of patent rights for improvements to public works.

**TO LOCOMOTIVE AND MARINE ENGINE BOILER BUILDERS.** Pascal Iron Works, Philadelphia. Welded Wrought Iron Flues, suitable for Locomotives, Marine and other Steam Engine Boilers, from 2 to 5 inches in diameter. Also, Pipes for Gas, Steam and other purposes; extra strong Tube for Hydraulic Presses; Hollow Pistons for Pumps of Steam Engines, etc. Manufactured and for sale by

MORRIS TASKER & MORRIS,

Warehouse S. E. corner 3d and Walnut Sts., Philadelphia 11f

**C. J. F. BINNEY, GENERAL COMMISSION MERCHANT** and Agent for Coal, and also Iron Manufactures, etc.

No. 1 CITY WHARF, Boston.  
Advances made on Consignments.  
Refer to Amos Binney, Boston.  
Grant & Stone, } Philadelphia.  
Brown, Earl & Erringer, }  
Weld & Seaver, Baltimore.

December 8, 1845.

1m 50

**SCRIBNER'S ENGINEERS' AND MECHANICS' COMPANION.** For sale at this office. Price \$1.50.

**A. & G. RALSTON & CO., NO. 4** South Front St., Philadelphia, Pa.

Have now on hand, for sale, Railroad Iron, viz: 180 tons 2½ x ¼ inch Flat Punched Rails, 20 ft. long. 25 " 2½ x ¼ " Flange Iron Rails. 75 " 1 x ¼ " Flat Punched Bars for Drafts in Mines. A full assortment of Railroad Spikes, Boat and Ship Spikes. They are prepared to execute orders for every description of Railroad Iron and Fixtures. 11f

**SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars.** The Subscriber is engaged in manufacturing Spring Steel from 1½ to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent,  
Albany Iron and Nail Works,  
Troy, N. Y. 11y

**RAILROAD IRON WANTED.** Wanted, 50 tons of Light Flat Bar Railroad Iron. The advertisers would prefer second-hand iron, if not too much worn. Address Box 384 Philadelphia P. O.—Post paid. 8 4t

**THE AMERICAN RAILROAD JOURNAL** is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

## RATES OF ADVERTISING.

One page per annum.....	\$125 00
One column ".....	50 00
One square ".....	15 00
One page per month.....	20 00
One column ".....	8 00
One square ".....	2 50
One page, single insertion.....	8 00
One column ".....	3 00
One square ".....	1 00
Professional notices per annum....	5 00

## ENGINEERS and MACHINISTS.

J. F. WINSLOW, Albany Iron and Nail Works, Troy, N. Y. (See Adv.)  
TROY IRON AND NAIL FACTORY, H. Burden, Agent. (See Adv.)  
ROGERS, KETCHUM AND GROSVENOR, Patterson, N. J. (See Adv.)  
S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)  
NORRIS, BROTHERS, Philadelphia Pa. (See Adv.)  
KITE'S Patent Safety Beam. (See Adv.)  
FRENCH & BAIRD, Philadelphia, Pa. (See Adv.)  
NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. (See Adv.)  
ROSS WINANS, Baltimore, Md.  
CYRUS ALGER & Co., South Boston Iron Company.  
SETH ADAMS, Engineer, South Boston.  
STILLMAN, ALLEN & Co., N. Y.  
JAS. P. ALLAIRE, N. Y.  
H. R. DUNHAM & Co., N. Y.  
WEST POINT FOUNDRY, N. Y.  
PHENIX FOUNDRY, N. Y.  
R. HOE & Co., N. Y.  
ANDREW MENEELY, West Troy.  
JOHN F. STARR, Philadelphia, Pa.  
MERRICK & TOWNE, do.  
HINCKLEY & DRURY, Boston.  
C. C. ALGER, Stockbridge Iron Works, Stockbridge, Mass.  
BALDWIN & WHITNEY, Philadelphia, Pa.  
THOMAS & EDMUND GEORGE, Philadelphia. (See Adv.)

**PROVIDENCE AND WORCESTER** Railroad.—Notice to Contractors.

The Route of this Road will be prepared for Examination by Contractors on the 16th of February, and Proposals for the Graduation, Masonry, Bridges, Timber, Spikes, Chains, etc., will be received after that date, until the 25th of February.

Blank Proposals, with Specifications attached, may be obtained, and the Profiles examined, at the offices in Worcester and Providence, after the 16th of February.

T. WILLIS PRATT,  
Engineer.

**MANUFACTURE OF PATENT WIRE** Rope and Cables for Inclined Planes, Stanching Ship Rigging, Mines, Cranes, Tillers, etc., by JOHN A. ROEBLING, Civil Engineer, Pittsburgh, Pa.

These Ropes are in successful operation on the planes of the Portage Railroad in Pennsylvania, on the Public Slips, on Ferries and in Mines. The first rope put upon Plane No. 3, Portage Railroad, has now run 4 seasons, and is still in good condition. 2v19 1y

**BACK VOLUMES OF THE RAILROAD JOURNAL** for sale at the office, No. 23 Chambers street.